



INTER-AMERICAN DEVELOPMENT BANK
BANCO INTERAMERICANO DE DESARROLLO
LATIN AMERICAN RESEARCH NETWORK
RED DE CENTROS DE INVESTIGACIÓN
RESEARCH NETWORK WORKING PAPER #R-517

CEO AND DIRECTOR TURNOVER IN VENEZUELA

BY

URBI GARAY
MAXIMILIANO GONZÁLEZ

INSTITUTO DE ESTUDIOS SUPERIORES DE ADMINISTRACIÓN (IESA)

NOVEMBER 2005

**Cataloging-in-Publication data provided by the
Inter-American Development Bank
Felipe Herrera Library**

Garay, Urbi.

CEO and director turnover in Venezuela / by Urbi Garay, Maximiliano González.

p. cm.

(Research Network Working papers ; R-517)

Includes bibliographical references.

1. Chief executive officers--Venezuela. 2. Executive succession--Venezuela. I. González Ferrero, Maximiliano. II. Inter-American Development Bank. Research Dept. III. Latin American Research Network. IV. Title. V. Series.

658.4 G332-----dc22

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Inter-American Development Bank

1300 New York Avenue, N.W.

Washington, DC 20577

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Abstract*

The aim of this study is to achieve a better understanding of corporate governance structures and mechanisms outside the United States by looking at a specific emerging economy: Venezuela. We first build a corporate governance practices index for publicly listed companies in this country; the overall results indicate that Venezuela exhibits relatively low corporate governance scores. Using this limited sample, we are able to find a positive relation between this corporate governance index and its sub-components and alternative measures of value (Tobin's q, price-to-book ratio, and dividend payout). In this environment, together with an underdeveloped financial market, a weak legal system, poor law enforcement, and high ownership concentration, we then address the question of whether the existing corporate governance system works at all in Venezuela. In particular, we are interested in studying the following two questions, which constitute a *necessary condition* for any corporate governance system to work. First, are poorly-performing CEOs more likely to be removed compared to well-performing CEOs? Second, is the role of the board to monitor the CEO or merely to serve as an advisor? To this end, we collected detailed data from 51 Venezuelan firms from 1984 to 2002. After controlling for characteristics related to CEO, board, ownership, firms, and time periods, we find that poor financial performance significantly increases the likelihood of CEO and director turnover. The empirical evidence is also consistent with the idea that directors in Venezuela play mainly an advisory role and not a monitoring role of the CEO.

* Comments by Florencio López-de-Silanes, Alberto Chong, Enrique Kawamura and Carlos Molina have been particularly helpful. Rafael García, Millie Honik and Daniel Ruiz provided excellent research support. The usual disclaimer applies.

1. Introduction

Firms in emerging economies sometimes cannot fund even superb projects because investors are afraid they will not get their money back. This expropriation risk is the essence of corporate governance, and the empirical evidence shows that there are great differences among corporate governance mechanisms around the world. This is particularly illustrated by La Porta, López-de-Silanes, Shleifer and Vishny (La Porta et al., 2000a, hereafter referred to as LLSV).

Although the whole range of corporate governance mechanisms has been studied in depth for the case of the United States and other developed economies,¹ not much work has been done for the rest of the world, and especially in the emerging markets. A recent exception is Gibson (2003), who reports that poorly performing managers in eight emerging markets are more likely to be replaced, leading him to the conclusion that corporate governance mechanisms in these emerging economies are effective.² This finding is important because a necessary condition for any corporate governance system to be able to work, is to insure that a poorly performing manager will be more likely to be removed from his or her position than a well performing manager.

The aim of this study is to continue the effort to achieve a better understanding of corporate governance structures and mechanisms outside the United States and the rest of the developed world by looking at a specific emerging economy: Venezuela. We first build a corporate governance index for publicly listed companies in this market using standard corporate governance measures contained in a questionnaire adapted from Klapper and Love (2002). The overall results indicate that Venezuela would be located in the average of the 14 emerging markets reported by these two authors, and the results further show that public companies in Venezuela exhibit relatively low corporate governance scores, especially in the categories of general principles and officers and the board of directors. The scores on shareholders and on disclosure and information are relatively better. We then conducted a number of nonparametric tests and regression analysis to test the relation between this corporate governance index and its sub-components and a set of three alternative measures of value (Tobin's q, price-to-book ratio,

¹ See Shleifer and Vishny (1997) and Denis and McConnell (2003) for a complete literature review.

² This author analyzed the largest public firms in Brazil, Chile, India, Korea, Malaysia, Mexico, Taiwan, and Thailand, using the Worldscope database.

and dividend payout). In general, we find a positive relation between the corporate governance index and our value measures.

In this environment of relatively low corporate governance scores, together with an underdeveloped financial market, a weak legal system, poor law enforcement, and high ownership concentration,³ we then address the question of whether the existing corporate governance system works in Venezuela. This is important because all of these issues are present in many Latin America countries and emerging markets around the world; therefore, Venezuela becomes an ideal case study on how the governance system works in this type of environment. Moreover, the Venezuelan Commercial Code makes the board of directors responsible for the management of the firm. More specifically, we would like to answer the following two questions in this paper. First, are poor performing managers more likely to be removed than good performing managers? Second, is the role of the board to monitor the CEO or to serve as an advisor? This contribution is important because, to the best of our knowledge, this is the first country-specific analysis on how firm performance affects the likelihood of CEO and director turnover in a specific Latin American country.⁴

To this end, we collected detailed data from 51 Venezuelan firms from 1984 to 2002 and constructed an unbalanced panel (878 observations) to study how the likelihood of CEO and director turnover is explained by firms' financial performance. After controlling for CEO characteristics, board characteristics, ownership, firm characteristics, and time periods, we find that, for this sample of Venezuelan firms, bad financial performance significantly increases the likelihood of CEO and director turnover. The empirical evidence is also consistent with the idea that directors in Venezuela play a role of mainly advising rather than monitoring the CEO, as we will show below.

The remainder of this study is organized as follows. In Section 2, we present an overview of the Venezuelan economy, the Venezuelan stock market and the legal framework of the country's capital markets. We also present the results of a survey we conducted on corporate governance practices in Venezuela and try to relate results from the questionnaire to measures of

³ Authors such as Lefort and Walker (2005) have argued that the observed high ownership concentration in Latin American economies make the boards weaker than in developed economies rendering them to be a poor governance tool.

⁴ See Brunello, Graziano and Parigi (2000) and Volpin (2002) for a similar investigation in Italy, and Renneboog (2000) for a similar investigation in Belgium. See also Claessens and Djankov (1999), and Crespi and Gispert (1998) for somewhat similar studies in the Czech Republic and Spain, respectively.

value. In Section 3, we show the database used to examine how performance affects the likelihood of CEO and director turnover in Venezuela. In Section 4, we develop the empirical analysis to test our hypotheses and review some of the previous literature on the subject. In Section 5, we present a set of robustness checks to the results obtained. Finally, in Section 6 we conclude and discuss our findings.

2. Institutional Characteristics

2.1. An Overview of the Venezuelan Economy and its Stock Market

The Venezuelan economy is characterized by the preeminence of oil, which accounts for about one third of GDP and half of government revenue, and represents the main source of foreign currency. Since the oil industry is state-owned, the government has considerable influence on the economy. By the end of 2004, Venezuela's GDP was expected to have reached \$100 billion, the fourth largest in Latin America.

The Caracas Stock Exchange (*Bolsa de Valores de Caracas*, BVC, www.caracasstock.com) was founded in 1947. Previous to that date, stock trades were performed over-the-counter. By the end of 2004, 57 companies were listed on the BVC, less than half of which trade regularly. Moreover, the Caracas Stock Exchange has experienced a severe decline in traded volumes since the mid-1990s as a result of a declining economy, the migration of stocks to the U.S. markets in the form of American Depositary Receipts (ADRs), the takeovers to which a number of firms have been subject, with a concomitant reduction in the number of shares available for trade, and an increasing country risk that has frightened investors, particularly foreign investors.⁵ In fact, daily trading volume has decreased from the equivalent to \$25 to \$30 million in 1997 to less than \$1 million by 2000, and it has not recovered since then (Garay, 2001). The BVC has survived during this period thanks to the growing trading of government debt securities. Stock prices, measured by the *Indice Bursátil Caracas*, have also been depressed during the past decade and have not recovered to the highest-ever levels experienced, in dollar terms, in 1991. According to the International Finance Corporation, the

⁵ For instance, the company *Electricidad de Caracas*, the second-largest firm in terms of market capitalization and traded volumes on the BVC, was the subject of a successful hostile takeover bid by the U.S. company AES Corporation in 2000. As a result, more than 80 percent of the stocks of *Electricidad de Caracas* no longer trade on the exchange.

market value of the Venezuelan stock market was \$7 billion in 2000, or just about 6 percent of GDP.

Capital issues have decreased dramatically during the past five years as the economy entered a severe recession. No new listing of companies has taken place in recent years, while a small number of companies have de-listed; bond issues by listed companies have also decreased. This trend has accentuated the importance of bank loans as the main source of funding for Venezuelan companies, although total bank loans as a percentage of GDP have also decreased during this period (Garay and Molina, 2004). The fact that a new pension funds law has still not been approved by Congress has not helped the market attract the much-needed presence of long-term funds for investment in various capital market instruments issued by local corporations.

As in most countries in Latin America, groups represent the typical corporate structure in Venezuela (LLSV, 1999). Dahlquist et al. (2003) document that by 1997, 62 percent of the total market capitalization of the BVC was held by insiders. Today, that number is higher since a number of takeovers and mergers have occurred, most notably *AES-Electricidad de Caracas*, *Polar-Mavesa*, and a number of bank mergers.

2.2. The Venezuelan Capital Market's Legal Framework

Venezuela's institutional setting, as in most of the developing economies in the world, differs a great deal from those in advanced economies, especially the U.S.⁶ Venezuela's legal origin is French civil law, which is generally characterized as having the weakest investor protection of all types, which consequently leads to less developed capital markets (LLSV, 1997).

The Commercial Code (*Código de Comercio*) and the Securities Market Law (*Ley de Mercado de Capitales* or SML) represent the umbrella under which capital markets and listed companies operate in Venezuela. The Commercial Code was enacted in 1955, while the Securities Market Law was enacted in 1975 and amended in 1998.

The SML regulates the public offer of stocks and other medium and long-term financial instruments, except for those issued by the government or those regulated by the Banking Law (*Ley General de Bancos y Otros Institutos de Crédito*) and the National Savings and Loans Law (*Ley del Sistema Nacional de Ahorro y Préstamo*). The main supervisory entity of the

⁶ Also, there are substantial institutional differences when compared to other well-studied economies such as Japan and Germany. In these countries the corporate governance model is generally described as relationship-oriented, where banks play a major role in monitoring management (Shleifer and Vishy, 1997).

Venezuelan capital markets, the *Comisión Nacional de Valores* or CNV (www.cnv.gov.ve), was created under the Securities Market Law of 1975, and it is affiliated with the Finance Ministry.⁷ The President of the CNV is appointed by the President for four years and can be reelected. The CNV has four directors, also appointed by the President, for three years; they can be reelected as well.

Public corporations must be registered at the Securities Registrar (*Registro Nacional de Valores*) administered by the CNV. Listed companies must also provide all relevant information to the CNV in a timely fashion and produce financial statements, which must be externally audited. The stock exchange may stop transactions at any time provided there is reasonable suspicion of the existence of relevant information not revealed to the market. The stock exchange must inform the CNV within 24 hours, and transactions may remain suspended for up to five days.

The SML requires companies registered with the CNV to be administered by a board of directors composed of at least five members who will remain in their positions for at least one year and can be reelected. Any group of stockholders representing at least 20 percent of a company's stocks has the right to elect at least one member of the board of directors. According to terms of Resolution No. 49-2001 of March 2001, the CNV regulates the process whereby minority shareholders can elect members of the board of directors.

The Commercial Code mandates that companies regulated by the CNV have two commissaries (*comisarios*), who are elected by shareholders in the general meeting to supervise the work of and the financial statements presented by the board of directors to stockholders at the annual meeting. The commissaries also have unlimited access to all the operations of the company. With the explicit intention of protecting minority shareholders, the SML also requires public companies to distribute to shareholders at least 50 percent of the net income obtained during the fiscal year, of which at least 25 percent must be in the form of cash dividends. Companies with accumulated losses from previous years may be exempted from this requirement until they compensate such deficit.

The CNV has additionally enacted a number of recent reforms with the intention of protecting minority shareholders and promoting greater disclosure. For example, during the

⁷ The Venezuelan banking system is supervised by the Superintendency of Banks and Financial Institutions (*Superintendencia de Bancos y de Otras Instituciones Financieras*).

aforementioned hostile takeover bid of *Electricidad de Caracas* by AES Corporation, the CNV required the latter company to purchase all the shares that were submitted during the public acquisition offer, even though AES Corporation only needed 51 percent of the shares to control the company, thus benefiting minority shareholders. In terms of disclosure, recent decisions by the CNV require listed companies to abide by international accounting standards.

In order to assess institutional differences among different countries, LLSV (1997) constructed two variables assessing the legal protection afforded an individual shareholder in different countries around the world. The first of these variables is called *Anti-director rights*,⁸ and the second is the perceived quality of the country's legal system and law enforcement, country, which they called *rule of law*.⁹ As seen in Table 1, an individual investor will be less protected in Venezuela than in the average Latin American country, based on the *Anti-director rights* index, and much less protected when compared with the United States. In terms of the *rule of law*, Venezuela's index is slightly higher than the average Latin America country, but it is still substantially below the U.S. index.

The other four variables in Table 1 represent proxies for size and depth of the capital market and attempt to measure the effect of legal protection on the development of each of the capital markets considered. The first variable is the ratio of domestic firms listed in the stock exchange of a country to its population (in millions) for the year 1996. Venezuela falls very far from the U.S. standard and below the Latin America average (excluding Ecuador and Chile which are outlying examples at the higher end for the Latin America sample, with index values of 13.18 and 19.92 respectively; the index goes down as low as 4.89).¹⁰ This is initial evidence that lower levels of protection are related to the existence of fewer public companies.

The second variable is the ratio of the initial public offerings of equity to its population (in millions) for the year 1996. In this period Venezuelan companies did not have any IPO offerings, which is the typical case in Latin America. Both the Venezuelan and the Latin

⁸ This index is constructed adding one if: a) shareholders can mail in their votes, b) shareholders are not required to deposit their shares prior to the general shareholder meetings, c) cumulative voting is allowed, d) an oppressed minorities mechanism is in place, e) the minimum percentage of capital that entitles the shareholders to call for an extraordinary shareholders meeting is less than 10 percent, and f) shareholders have redemptive rights. The maximum value of this index is 6 and the minimum is 0.

⁹ This variable assesses the law-and-order tradition in the country and is constructed by the *International Country Risk Guide*. The lowest possible score is 0 and the maximum is 10.

¹⁰ The other Latin America countries included in this sample are Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Peru and Uruguay.

American averages are well below that of the United States, which confirms the conclusion of LLSV (1997) that legal protection and law enforcement are positively related to the development of capital markets.

The third variable is the ratio of all bank debt in the private sector to the GNP in 1994; the ratio for Venezuela is 0.10, which is lower than the Latin American average of 0.29, and much lower than the U.S. average of 0.81.

Finally, we present the ratio of the stock market capitalization held by minority shareholders to the GNP for 1994. In this last case, the Venezuelan ratio is 0.08, which is considerably lower than the U.S. ratio of 0.58 and the Latin American ratio of 0.27 (taking out Chile, which is a sample outlier with an index of 0.8, this index falls to 0.18).

Unfortunately, none of these four variables would show an improvement during the past few years, in spite of the recent reforms by the CNV promoting minority shareholder protection and more disclosure.¹¹ Other factors, such as political uncertainty and an economic collapse in 2002 and 2003, may partially explain these results.

Taken together, Venezuela's statistics are generally lower, in both legal protection and market development, than those of the other countries in Latin America and well below the numbers for the United States. These statistics give us the opportunity in this research to contrast two very different environments (the United States and Venezuela) and to analyze the relationship between firm financial performance and CEO and directors turnover in a small and underdeveloped capital market. The conclusions drawn from this study can be important for other Latin American countries as well.

2.3. Corporate Governance Practices in Venezuela

In this section we present the results of a questionnaire on corporate governance practices of both public financial and public nonfinancial firms in Venezuela. The questionnaire allows us to place our study in context by showing the current state of corporate governance practices in Venezuela. Its results also lead us to suggest a set of policy recommendations that should be adopted by regulators in order to improve corporate governance practices in the country.

¹¹ Recently, the CNV issued a set of principles of corporate governance ("Principios de Gobierno Corporativo," www.cnv.gov.ve) in which a stricter definition of an independent director is provided. The principles also recommend that public companies should have an audit committee composed of independent directors.

We sent the questionnaire to each one of the 57 companies listed on the Caracas Stock Exchange at the beginning of 2004. The survey represents an adaptation of the Credit Lyonnais Securities Asia (2001) questionnaire presented in Klapper and Love (2002) to the Venezuelan and to the Chilean (as presented in Lefort and Walker, 2005) stock markets. The questionnaires were sent to each company's CEOs and were answered mainly by the legal officers of each of the firms, although a number of questionnaires were also answered directly by the CEO, by the Board of Directors' Assistant or by a firm's director.¹²

Given that the number of companies listed on the BVC is small, we needed to have a relatively high response rate for our results to be meaningful. To this end, we contacted each of the 44 companies that had not answered the questionnaires when we first sent them and were able to collect answers through direct interviews from 19 of these firms between December of 2004 and January of 2005. This brought the total number of completed questionnaires to 31, representing a high level of 54 percent of the firms listed on the BVC. In terms of market capitalization, firms that answered the questionnaire represented approximately 87 percent of the BVC's total market capitalization (see Table 2, Panel A).

As in Klapper and Love (2002) and in Lefort and Walker (2005), the questionnaire contains four sections or sub-indices involving: (i) general principles, (ii) officers and the board, (iii) shareholders, and (iv) disclosure and information. The questionnaire consists of 71 questions, 62 of which are of the "yes/no" type.¹³ A "yes" answer adds one point to the corporate governance score if it indicates a better corporate governance practice. We normalized each answer between 0 and 7 to make our results comparable to those of Lefort and Walker (2005) and then calculated a simple average of the results for each of the sections.

The results are presented in Panels B, C, and D of Table 2, and they show that Venezuelan public companies exhibit relatively low corporate governance scores, especially in the categories of general principles and officers and the board. The scores on shareholders and on disclosure and information are relatively better. Overall results would give Venezuelan firms a 3.79 out of 7 score, which is equivalent to 54 points out of 100. Mean results for the 14 emerging

¹² We acknowledge that our results may be more "optimistic" about the current state of corporate governance practices in Venezuela than the general results presented in Klapper and Love (2002) for 14 emerging markets. This is because those authors' results were based on the Credit Lyonnais Securities Asia (2001) study, where questionnaires were filled out by analysts. In our case, questionnaires were filled out by representatives of each of the companies.

¹³ Results from Questions 20 and 49 are not reported.

markets considered in Klapper and Lover (2002) yielded a very similar score of 54.11. Scores for the two Latin American countries considered in their paper were 57.26 (Brazil) and 61.63 (Chile).¹⁴

Regarding *general principles*, and similar to the results found by Lefort and Walker (2005) for Chile, Venezuelan companies generally do not adhere to an international code of conduct. However, more than half of the companies that answered the questionnaire acknowledged having issued a mission statement that explicitly places a priority on good corporate governance, include in their annual reports a section devoted to the company's performance in implementing corporate governance principles, and have a code of conduct with corporate governance principles. We suspect, though, that some of these numbers overestimate the reality.

The second section of the questionnaire involves *officers and the board*. The average score for this section was 3.92. For almost half of the companies surveyed, the CEO was also the Chairman of the Board and belonged to the same family or control group. More than half of the companies acknowledged having independent board members, and the majority have an audit committee, but only a few have a corporate governance committee. Although companies in Venezuela are legally obliged to inform the CNV of management and director compensation and shareholdings, a number of them admit not having disclosed this information. None of the directors or managers of the companies surveyed has been sanctioned by the regulator during the past three years, and only one of the companies ties management remuneration to the value of the company's shares. This is not surprising, given the illiquidity of the local stock market.

The average score for the section on *shareholders* was 3.78. For all but one of the firms, each share equals one vote and multiple voting shares are not allowed. Shareholders do not have to be present at the general shareholders meeting to vote as long as they send a proxy. Minority shareholders are considered to be those representing at least 20 percent of the shares of the company, according to the Capital Markets Law. Minority shareholders have benefited from recent decisions by the CNV regarding tag-along rights to sell shares at the same price received by the controller when the company is sold, as was the case in AES hostile acquisition of *Electricidad de Caracas* in 2000 mentioned above.

¹⁴ The other 12 emerging markets studied in Klapper and Love (2002) were Hong Kong, India, Indonesia, Malaysia, Pakistan, Philippines, Singapore, South Africa, South Korea, Taiwan, Thailand, and Turkey.

Finally, Venezuelan companies score relatively well in the section on disclosure and information. Most of the companies answering the questionnaire publish their semiannual and annual reports within two months of the end of the half-year and of the quarter, respectively. The majority of firms present their accounts according to IGAAP and are audited by an internationally recognized external auditing firm. Companies are also obliged to disclose ownership information, executive and director compensation and related party transactions to the CNV. On the other hand, results and other announcements are generally not updated promptly, companies typically do not disclose ultimate ownership information, external auditors are not elected by the firm's audit committee, and external auditors are hired for consulting purposes.

In the Appendix at the end of the paper we present nonparametric tests and regression analysis on the relation between the measures of corporate value (Tobin's q , price-to-book, and dividend payout) and the corporate governance index and sub-indices.

3. Data

Table 3 presents the definition of the variables used to study the effectiveness of corporate governance mechanisms in Venezuela, this is, to evaluate whether CEO and director turnover are related to corporate performance in this country.

To achieve this goal we construct a panel data set. The initial sample includes all the public companies that were traded in the BVC during the period 1984-2002. This represented 89 companies in various economic sectors in 1984 but it had decreased to 59 companies in 2002.¹⁵ After excluding all companies without public annual financial proxies and information on the board of directors (CEO and principal directors names), and firms with less than nine years of historical data, the sample was reduced to 51 firms and 878 observations (see Panel A in Table 4). CEO turnover was measured comparing the name of each CEO in year $t-1$ to the name of the CEO on year t . If the name changed we record a CEO turnover for year t . We follow the same procedure to account for director turnover.¹⁶ We recorded a total of 131 CEO turnovers and 946 director turnovers during our sample period (see Panel A in Table 4).

¹⁵ Eighteen firms in our final sample were listed for less than 19 years on the Caracas Stock Exchange. Therefore, our panel is unbalanced.

¹⁶ Note that we do not know whether the turnover was forced or "natural." We do not think this lack of knowledge will bias systematically our results. In any case, if there is a systematic bias, it will make it harder to find any connection between CEO turnover and a firm's performance. This issue is discussed further in Section 5.

Regarding industries, as shown in Panel B in Table 4, we grouped our sample into three economic sectors: manufacturing (51 percent), financial (33 percent) and services (16 percent). Finally, Panel C in Table 4 shows the percentage coverage of our sample for each year.

Although the size of the sample may seem small relative to the studies that have been done in the U.S. and other developed economies, it is not small relative to the number of firms in the Caracas Stock Exchange, since the firms in the sample represent close to 70 percent, on average, of the total number of firms listed, and close to 95 percent (in each year studied) in terms of market capitalization.

3.1. Summary Statistics

Table 5 shows the mean, median, and standard deviation of selected variables. Panel A shows the number of CEO and director turnovers, *CEOTUR*, which varies through the years from only 2 yearly turnovers in 1984 and 1990 to 11 turnovers in 1996. The variation is similar in the other years in the sample, but it is not shown in this table. In the case of director turnover, *DIRTUR*, the number of turnover increases substantially, from a minimum of 22 turnovers in 1984 and 1990 to a maximum of 65 turnovers in 2002. In terms of board characteristics, Panel B shows that the average size of the board of directors, *BOASIZ*, in Venezuela is around 8 members,¹⁷ which is smaller than in the United States¹⁸ and remains fairly stable throughout the years in the sample. The maximum board size in the whole sample is 14, and the minimum is 5. The fraction of the board that is classified as outsiders in the annual financial reports, *OUTDIR*, is around 53 percent and remains very stable during these years; for U.S. firms this fraction is 45.6 percent, less than what we find here.

In terms of board independence, *INDEPE*, which is calculated as *OUTDIR* minus *INSDIR* (fraction of the board of directors that are insiders), we observe a positive independence on average in each year, that is, the average board of directors in Venezuela tends to have more outsiders than insiders in the board. However, we suspect that this proportion tends to be lower because it is difficult to determine if a given director is truly an outsider. The median CEO tenure, *CEOTEN*, decreased substantially in the sample: in 1984 the median *CEOTEN* was 8 years and in 2002 was approximately 3 years. Also, the median director tenure, *DIRTEN*,

¹⁷ Notice that this result is basically the same as we obtained on the questionnaire (see Table 2, Panel D).

¹⁸ See Shivdasani and Yermack (1999) for similar statistics corresponding to the U.S. market as of 1994.

decreased in the sample from 10 years in 1984 to a little more than 7 in 2002. Finally, the CEO age remained fairly stable at around 55 years on average.

Panel C presents two accounting measures of firm performance: return on assets (*ROA*), and return on equity (*ROE*). These ratios have been deteriorating since 1984. The average *ROA* and *ROE* were negative in 1999. These statistics lead to the question of whether declining corporate performance is related to increasing CEO and director turnover.

Other variables reported in Panel D in Table 5 are firm size (book value of assets), *FSIZEB*, reported in U.S. dollars, using each year's average exchange rate, and ownership concentration, *OWNCON*, which is the fraction of book value held by the major stockholder of the firm. This variable shows that firms in the sample tend to have highly concentrated ownership, which is consistent with the findings of Dahlquist et al. (2003) and the arguments given in Lefort and Walker (2005) on ownership concentration in Latin America. Finally, Table 5 shows that for 1984, the firms in the sample had been in operation for an average of around 39 years of operation (*YEACON*).

4. Empirical Analysis on CEO and Director Turnover

In this section we concentrate on two hypotheses: the first is directly drawn from the corporate governance literature (see, for example, Shleifer and Vishny, 1997, and Hermalin and Weisbach, 1998).

***Hypothesis 1:** A CEO whose firm performs poorly will have a greater probability of being replaced than a CEO whose firm has performed well.*

Our second hypothesis is drawn from the Venezuelan's Commercial code, which states that boards of directors are responsible for the management of firms. Therefore, we investigate whether or not director turnover is also associated with poor firm financial performance, specifically:

Hypothesis 2: Director turnover will be greater when firm performance is poor.

These hypotheses are fundamental in corroborating whether the corporate governance *system* in Venezuela is able to remove poor performing managers and directors. In what follows, we seek to find evidence that will help us to answer these two questions: First, is the CEO at risk of losing his or her job when poor corporate performance occurs? Second, are directors monitors of the CEO, or are they also removed when corporate performance deteriorates?

Hypothesis 1 has already been tested in the United States. For instance, Coughlan and Schmidt (1985), Furtado and Rozeff (1987), Weisbach (1988), Warner, Watts and Wruck (1988), Mork, Shleifer and Vishny (1988), Gilson (1989), Kaplan and Reishus (1990), Jensen and Murphy (1990), Martin and McConnell (1991), Denis and Denis (1995), Denis, Denis and Sarin (1997), and more recently, Huson, Parrino and Starks (2001) have all found empirical evidence in the United States supporting Hypothesis 1. Table 6 presents the hypothesis, sample and main conclusions of each one of these studies.

Also, using international data sets, Kaplan (1994a), Kaplan and Minton (1994), and Kang and Shivdasani (1995) have found evidence in Japan supporting Hypothesis 1; Volpin (2002) and Brunello, Graziano and Parigi (2000) have found support in Italy; Kaplan (1994b) has found support in Germany; and Renneboog (2000) confirms this hypothesis in Belgium.

Dahya, McConnell and Travlos (2002) find that, after the Cadbury Committee's recommendations were put into effect in the United Kingdom, CEO turnover sensitivity to performance increased significantly. More recently, Gibson (2003) found support for this hypothesis in a study of 1,200 firms in eight emerging economies. However, to the best of our knowledge, no published studies testing Hypothesis 1 in any Latin American country in particular have been conducted to this date.

In contrast to the large amount of work done to test Hypothesis 1, Hypothesis 2 has received much less attention. Among the few existing studies, Coles and Hoi (2003) find that directors of firms who opt out of Pennsylvania Senate Bill 1310 (a bill to give more security to directors in the case of takeovers) are significantly more likely to keep their board seats and obtain new board appointments. This finding is consistent with Gilson (1990), who reports an increase in director turnover in firms experiencing financial distress. Harford (2003) finds that the overwhelming majority of outside directors are replaced after a merger or acquisition.

Finally, Farrell and Whidbee (2000) also document a connection between CEO turnover and changes in the board of directors. To our knowledge, this will be the first time that Hypothesis 2 is tested in any Latin American country.

The empirical analysis will follow four steps: first, we present evidence using a univariate test of the relationship between corporate performance and CEO and director turnover. Second, we explore, using a *Logit* regression model, the relationship between the likelihood of CEO turnover (*CEOTUR*) and corporate performance; this result provides direct evidence to test Hypothesis 1. Third, we use a *Poisson* regression model to determine the relationship between the number of director turnovers (*NUMDIR*) and corporate performance. Finally, we further investigate the relationship between director turnover and corporate performance, but this time we use an *OLS* regression model and, as a dependent variable, the fraction of director turnovers (*BODITU*). These results will provide evidence to test Hypothesis 2.

4.1. CEO and Director Turnover, a Univariate Approach

We first approximate the relationship between corporate performance and CEO and board of director turnover to determine the pooled sample correlations between our proxies of performance and the CEO/Director turnover variables.

We use only accounting performance measures for this and the other tests in this paper for two reasons. First, many of the firms in our sample did not trade frequently during the sample period and, therefore, using any market performance variable reduces significantly the number of observations. The relative illiquidity of emerging stock markets has already been documented by a number of authors (see, for instance, Demirgüç-Kunt and Levine, 1995). Also, according to Domowitz, Glen, and Madhavan (2001) transaction costs in emerging markets are significantly higher than those in developed markets. In fact, in the case of the Venezuelan stock market, transaction costs are found to be among the highest in the region (see International Finance Corporation, 1999). As Gibson (2003) contends, these factors, taken together with the documented inefficiencies of stock markets in developing countries and, in particular, in the Venezuelan stock market (see Harvey, 1995, and Bruner et al., 2003), render stock market returns a noisy signal of firm performance in emerging stock markets.

Second, it can be argued that accounting performance results accrue strictly on the current CEO, whereas market performance measures also reflect the impact of market factors

outside the CEO's control and the expected productivity of a new CEO (Weisbach, 1988). On the econometric side, Bhagat and Jefferis (2002) show that regressions based on cash flow estimates such as ours are more robust to variations in specifications on how performance is measured. Also, Murphy and Zimmerman (1993) find that accounting-based performance measures have predictive power.

In Table 7, we present the correlation matrix for the pooled data set. The turnover variables *CEOTUR*, *DIRTUR*, and *BODITU* have the correct expected correlation sign (negative) with all our performance measures: *ROA*, *ROAA*, *LROA*, *LROAA*, *ROE*, *ROEA*, *LROE*, and *LROEA*; and a positive sign, as expected, for *NEGINC* and *LNEGAINC*. In terms of significance, almost all correlation coefficients show significance levels in the 1 to 10 percent range. The variable *BODITU*, which also measures director turnover, but in relative terms (the fraction of the board that turned over), is also significant in all cases. In general, we cannot infer causality using these correlations coefficients; however, we can state that these coefficients show a strong (linear) association between the financial performance measures and the turnover variables.

In the next two subsections, we explore further the relationship between CEO and director turnover and corporate performance.

4.2. CEO Turnover, a Logit Approach

The model we use in this test is a Logit regression; this model estimates the likelihood of CEO turnover given a set of regressors. The multivariable logistic response function is given by

$$E\{Y_{it}\} = \frac{e^{\beta'X_{it}}}{1 + e^{\beta'X_{it}}} \quad (1)$$

The log-likelihood function is given by (see Neter et al., 1996, for details):

$$L(\beta) = \sum_{i=1}^N \sum_{t=1}^T Y_{it} (\beta'X_{it}) - \sum_{i=1}^N \sum_{t=1}^T \ln[1 + e^{\beta'X_{it}}] \quad (2)$$

Using Maximum Likelihood Estimator procedures we obtain the vector $\hat{\beta}$ that maximizes (2). After regressing CEO turnover with the proxies for performance and controlling for CEO characteristics, board characteristics, blockholding ownership, firm characteristics, and time period, we could directly test Hypothesis 1. We report the results of our panel data regressions in Table 8 using random and fixed effect specifications. Following Bhagat and

Jefferis (2002), Himmelberg, Hubbard and Palia (1999), and Hermalin and Weisbach (1991), we argue that the use of panel data regressions with lagged performance variables allows us to control, at least to some extent, for possible biases and inconsistencies due to the joint endogeneity between CEO turnover and a firm's performance.

Although we used a fixed effects specification to allow us to take explicitly into consideration the unobserved heterogeneity that exists among the firms in our sample, we also report the results using the random effect specification in order to measure the robustness of our estimated coefficients.¹⁹

As Table 8 shows, the relation between CEO turnover and firm performance is negative when we use *LROAA* (lag value of the ratio of earnings before interest and taxes to total assets less the median value of the ratio for all firms in the same industry) and *LROEA* (lag value of the ratio of earnings before interest and taxes to total equity less the median value of the ratio for all firms in the same industry) as the performance measure and positive when we use *LNEGINC* (lag value of *NEGAINC* which takes the value of 1 if firm *i* report a negative net income in year *t*) as the performance measure.

In terms of statistical significance, the coefficients for *LROAA* and *LNEGINC* are significant at the 1 and 5 percent levels when using random and fixed-effect specifications, respectively; for these two performance measures the *z*-statistics are robust to various model specifications.²⁰ For example, in the first model, we interpret the slope coefficient of *LROAA* for the random effect model (-2.2922) as follows: If *LROAA* is reduced by 1 percent while the other coefficients in the model remain constant, the probability that a CEO turnover occurs ($CEOTUR=1$) increases by 10.1 percent ($\approx e^{-2.2922}$). In none of the models studied was *LROEA* statistically significant, although the sign was consistently negative.

Contrary to our expectations, the coefficient of *CEOAGE* is negatively related and statistically significant to CEO turnover in all model specifications. We can interpret this result by arguing that relatively old CEOs are less likely to leave the firm due to poor firm performance than relatively young CEOs in our sample of Venezuelan companies. This could be regarded as evidence of CEO's entrenchment as they get older. Moreover, the coefficient of the dummy

¹⁹ See Section 5.4 for our analysis of the robustness of our results using an instrumental variables approach.

²⁰ In each of the random effect models we calculate the Huber/White/sandwich estimator of variance. This procedure validates standard errors even if the correlations within groups are not as hypothesized by the specified correlational structure.

variable *CEOCHA* that takes the value of 1 when the *CEO* is also the chairman of the board is also negative (proxy for CEO power) in all model specifications and statistically significant at the 5 percent significance level for the fixed effect models.

To control for board characteristics, we use the lag value of director turnover (*LDIRTUR*), the percentage change in board independence (*LPCHAIN*) and the median board tenure (*MEDITE*). Table 8 shows a negative and significant coefficient at the 1 percent significance level for *LDIRTUR* for all model specifications. This indicates that changes in the board of directors negatively affect the probability of CEO turnover for this sample of Venezuelan firms. For the coefficient of *LPCHAIN* we find positive coefficients in all model specifications (an increase in board independence increases the probability of CEO turnover); however, the coefficients were statistically significant only in Models 1 and 5 (at the 10 and 5 percent significance level). The last variable used to control for board characteristics was *MEDITU*, showing a negative and significant coefficient (at the 1 percent significance level) for all model specifications. This seems to indicate that the longer the board members are in office, the less likely that the CEO will be removed due to bad corporate performance. This also could be interpreted as preliminary evidence of CEO entrenchment (Hermalin and Weisbach, 1998).

To control for ownership concentration we used the number of shareholders with more than 20 percent of the book value of the firm or blockholders (*BLOHOL*). The coefficient for this variable was not significant in any of the model specifications. We also used (not reported in Table 8) the ownership concentration of the major shareholder (*OWNCON*), but the coefficient was not statistically significant either. The explanation of these results is twofold: first, as we noted in Table 5, Venezuelan firms' ownership structure is highly concentrated, so there is very little *between-firm* variability. And second, the ownership concentration remains very stable during the sample year for each firm, so there is also very little *within-firm* variability.

To control for firms' characteristics, we use the natural logarithm of a firm's assets, *FSIZE*, and the leverage ratio of debt to assets, *CASTR*. We find that size is positively related to *CEOTUR*. In our sample, the CEO of a relatively large firm is statistically more likely to leave the firm after a period of bad performance than the CEO of a relatively smaller firm; however, the statistical significance of the coefficient is very sensitive to changes in the model specification (fixed versus random effects). For the *CASTR* variable, the signs and the significance of the coefficients are also very sensitive to the model specification.

Finally, we control for time periods using the variable *PERIOD2*, which is a dummy variable that takes the value of 1 if the observation was taken from year 1991 to 1996 (inclusive) and 0 otherwise. We include this variable to determine whether CEO turnover was influenced by the banking crisis in Venezuela (1994), where approximately half of the banking system went bankrupt and many Venezuelan firms experienced financial problems. The coefficient shown in Table 8 indicates no statistical relation between this time period and CEO turnover.

The Hausman test for the random effects model shows that we fail to reject the hypothesis that the observed firm characteristics are correlated to our set of regressors at the 1 percent significance level in Model (1) and at the 10 percent level in Models (3) and (5). The first response to this (Wooldridge, 2002) would be to conclude that the random effect assumptions do not hold and that we should focus our conclusions on fixed effect Models (2), (4), and (6). However, as we can see in Table 8, Models (2) and (6) also show a strong negative and statistically significant relation between the probability of CEO turnover and firm performance, although this is not the case for Model (4).

We conclude this subsection by confirming that we find empirical support for Hypothesis 1 in Venezuela: there is evidence that CEO turnover is negatively related to firm performance after controlling for CEO characteristics, board of directors characteristics, ownership characteristics, firm characteristics, and for the time period 1991-1996.

4.3. Director Turnovers, a Poisson Approach

The first model we use to test Hypothesis 2 is the Poisson Regression Model.²¹ This model is appropriate to analyze director turnover for at least one reason: the dependent variable, *DIRTUR*, is a count variable with values 0, 1, 2, ..., *n* where *DIRTUR*=0 (no director turnover) is a natural outcome of the Poisson process. This statistical model is a generalization of the Poisson distribution, where the events occur randomly and independently in time. Consider the Poisson parameter λ with the following specification:

$$\ln \lambda = X'_i \beta \quad (3)$$

²¹ For a complete explanation of the specifications of this model, see Hausman, Hall and Griliches (1984) and Neter et al. (1996).

where: \mathbf{X} is a vector of regressors that describes the characteristics of an observation unit (firm) i in a given time period t . Denote $DIRTUR_{it}$ as the observed unit count for firm i and time t . In this case:

$$E\{DIRTUR_{it} | X_{it}\} = \lambda \quad (4)$$

Note that the “zero problem,” that is $DIRTUR_{it} = 0$, is a natural outcome of the Poisson distribution, and the only assumption we need to make is the time independence of observations. The Poisson probability density function is given by:

$$\Pr\{DIRTUR_{it}\} = \frac{e^{-\lambda_{it}} \lambda_{it}^{DIRTUR_{it}}}{DIRTUR_{it}!} \quad (5)$$

Substituting (3) into (5) and taking logs in both sides give:

$$\ln(\Pr\{DIRTUR_{it}\}) = \ln(-DIRTUR_{it}! - e^{X'_{it}\beta} + DIRTUR_{it} X'_{it}\beta) \quad (6)$$

Summing for a sample of N firms over T periods, the log likelihood function for the Poisson model is given by:

$$L(\beta) = \sum_{i=1}^N \sum_{t=1}^T (-DIRTUR_{it}! - e^{X'_{it}\beta} + DIRTUR_{it} X'_{it}\beta) \quad (7)$$

Hausman, Hall and Griliches (1984) have shown that this function is globally concave, as long as \mathbf{X} is a full column rank and $e^{X_{it}\beta}$ does not go to zero for all X_{it} .

As argued before, in a cross-section investigation such as ours it is necessary to include firm-specific fixed effects to take into consideration the unobserved heterogeneity of our sample. It can be shown that (7) takes the form of

$$L(\beta) = C - \sum_{i=1}^N \sum_{t=1}^T DIRTUR_{it} \ln \left[\sum_{t=1}^T (e^{-(X_{it}-X_{it})\beta}) \right] \quad (8)$$

after we include the firm-specific effect into the model (for technical details, see Hausman, Hall and Griliches, 1984). Equation (8) ignores the variations among firms and only studies the within-firm variation; this omission substantially reduces the variability of our sample. We present, however, the results using both models' specifications as we did before.

In Table 9 we report the results of these regressions. In Table 9, all performance measures show the correct signs and are statistically significant,²² except in Model (4) where the *z*-value of *LROEA* is -1.52 (p-value 0.129). These results confirm the inverse relationship between corporate performance and director turnovers found in the univariate test. In addition, the control variables show a very significant effect on the median director tenure (*MEDITE*), the lag value of CEO turnover (*LCEOTUR*), size (*FSIZE*) and *PERIOD2*. *MEDITE* is negative, suggesting that the longer the director stays on the board, the harder it is to observe a director turnover due to poor firm poor performance. This also reflects a possible entrenchment effect on the board. *LCEOTUR* is negative, suggesting that when a new CEO is appointed (replacing the CEO who was turnover) there is also a change in the board; we should therefore observe a few changes in the board of directors one year after a new CEO has taken charge. This is consistent, on the one hand, with the hypothesis that the CEO may also wish to remake the board with directors of his own choosing (Yermack, 2004) and, on the other hand, with the fact that in Venezuela directors are considered by law to have administrative responsibilities. *FSIZE* is positive, showing that in bigger firms (with presumably bigger boards), we observe more director turnovers. Finally, *PERIOD2* is positive and significant, indicating that in this period (1991-1996 inclusive) there were unusual director turnovers. This result probably is a consequence of the Venezuelan banking crisis, where half of the banking system had to be restructured and many directors had to leave their firms.

Table 9 also shows a positive sign in the coefficient of *ADRUSA* (a dummy variable that takes the value of 1 if the firm has issued American Depositary Receipts, or ADRs, in the U.S.) suggesting that firms change directors (presumably for more independent directors) before going to the U.S. market. However, this coefficient was statistically significant at the 10 and 5 percent level only in Model (1) and in Model (3), respectively. The other control variables, *CEOCHA*, *CASTR* and *BLOHOL*, show no statistical significance in any of the models.

In the three models presented in Table 9, we find the presence of serial correlation in the random effects models (all Hausman tests are statistically significant at the 1 percent level), but this problem is not uncommon in panel data analysis (Hausman, Hall and Griliches, 1984). However, the main results remain similar when we include firm-specific fixed effects.²³

These results leave us to conclude that Hypothesis 2 cannot be rejected; that is, performance seems to affect director turnover. In the next subsection, we will investigate whether or not these results still hold when we change the turnover measure for directors.

²² The estimation used the Huber/White/Sandwich estimator of variance; as we did in the Logit regressions in Table 8. This method produces valid standard errors even if the correlation within groups are not as hypothesized by the model correlation structure (an AR(1)) process in this case).

²³ Remember that fixed effect models lower the amount of variation in the data substantially, because they ignore variations among firms and only use within-firm variations.

4.3.1. Director Turnovers, OLS Approach

Here we perform an Ordinary Least Squares (OLS) estimation of the percentage turnover of the board (*BODITU*) as a dependent variable. This model can be written as:

$$Y_i = \beta'X_i + \varepsilon_i \quad (9)$$

Also, we need to assume here that $E\{\varepsilon_i\} = 0$ and

$$E\{\varepsilon_i \varepsilon_j\} = \frac{\sigma_{ij}}{1 - \rho_i \rho_j} \begin{pmatrix} 1 & \rho_j & \dots & \rho_j^{T-1} \\ \rho_i & 1 & \dots & \rho_j^{T-2} \\ \cdot & \cdot & \cdot & \cdot \\ \cdot & \cdot & \cdot & \cdot \\ \rho_i^{T-1} & \rho_i^{T-2} & \dots & 1 \end{pmatrix} \quad (10)$$

here we also assume that $e_{it} = \rho_i e_{i,t-1} + v_{it}$ for $i = 1, 2, \dots, N$ where $E\{v_{it}\} = 0$, $E\{v_{it} v_{jt}\} = \sigma_{it}$ and $E\{v_{it} v_{js}\} = 0$ for $t \neq s$.

In Table 10, we report the result for this model. As Table 10 shows, the coefficients of all performance measures have the correct sign and are statistically significant. This confirms the inverse relationship between corporate performance and director turnover found using the Poisson regression model and the univariate test. Also, the control variables display similar behavior, as we report for the Poisson approach. Contrary to the Poisson approach, however, we did not find serial correlation in the random effects models (Hausman tests were not statistically significant in any of the models). This finding explains the similarities of the performance coefficient estimates when using random or fixed effect models.²⁴

The univariate test, the Poisson regression, and the OLS regression provide strong evidence in favor of Hypothesis 2; that is, performance affects the departure of directors for this Venezuelan sample. The empirical evidence shows that the poorer the firm performance the higher the incidence of director turnovers, which is consistent with Yermack (2004) and Farrell and Whidbee (2000), who found similar results in the United States, a very different context in terms of market development and legal framework.

²⁴ Also, we perform the same regression using the logarithmic transformation of *BODITU*, and the results remained unchanged in terms of the coefficient signs and their statistical significance.

5. Robustness Checks

In this section we present a set of robustness checks to our results. We group the tests into the following categories: lagged values of performance measures, macroeconomic controls, ownership structure, endogeneity problem, and forced turnover.

5.1. Lagged Values of Performance Measures

We run three additional sets of regressions (not shown in the paper but available upon request). The first uses the second lag of our performance proxies instead of the first lag. The coefficient of the lag value of *LROAA* (that is, the second lag), the lag value of *LROEA* and the lag value of *LNEGINC* were -1.930618 ($z=-2.958$), -0.3169111 ($z=-2.150$) and 0.3557117 ($z=1.056$), respectively for the random effect models. Note that the signs of the coefficient are all correct and statistically significant, except for *LNEGINC*, and they are even higher than those reported using the first lag (see Table 8). However, for the fixed effects models, although the sign is still correct, the estimated coefficients were not statistically significant.

For the second set of regressions we included the first and the second lag for each of the performance measures. In all case the signs were correct for the random and for the fixed effect models and at least one of the coefficients was statistically significant. For example, the coefficients of *LROAA* (first lag) and its second lag in the random effect model were -2.047963 ($z=-3.081$) and -1.440506 ($z=-2.191$), respectively.

For the third set of regressions we took the arithmetic average of the first and the second lag values for each performance measure. For both, the random and the fixed effects models, the sign of the coefficients were correct and significant. The coefficient of the average lag of the *ROAA* was -3.545955 ($z=-3.261$) and -3.152654 ($z=-1.805$) for the random and fixed effect models, respectively.

These analyses confirm that the model reported in Table 8 is robust in terms of the lag value chosen.

5.2. Macroeconomic Controls

Although we control for industry-wide shocks by adjusting our performance measures by industry, an aggregate macroeconomic shock could have difference effects different across

industries and across firms. As the Venezuelan economy is highly dependent on oil, we include two macroeconomic controls: the annual variation of the non-oil gross national product in real terms and the annual variation of the national income from oil, also in real terms.

The regression results (not shown in the paper but available upon request) do not change significantly from those reported in Tables 8, 9 and 10. The annual variation of national income from oil was never significant, and the annual variation of the non-oil gross national product in real terms was only significant at the 10-percent level in the regression where the dependent variable was *CEOTUR*.

5.3. Ownership Structure

We use three variables to measure the impact of ownership concentration in the relation between turnover and performance: *OWNCON*, *BLOHOL* and *ADRUSA*. We run a set of eight regressions (all possible combinations among these three variables including not using any of them), and the results do not change significantly (all these regressions are available upon request).

The empirical implication of this variable is not clear from the theoretical point of view.²⁵ On the one hand, we could have a positive relation with turnover, arguing that the higher the concentration the better the monitoring of the CEO. Therefore a “better monitoring” history could explain higher turnover due to poor firm performance when ownership concentration is high; we would thus expect a negative sign for the firm performance proxy and a positive sign for the ownership proxy. On the other hand, a high concentration could also mean that the firm’s owner appoints a “puppet CEO” in order to extract rents from minority shareholders; therefore, we would expect no relation between turnover and performance and a negative coefficient for ownership (i.e., more ownership concentration means less CEO turnover).

Also, and as we argued before, the low *between-firm* variability and *within-firm* variability in each of these three variables could explain the lack of statistical power (they were not statistical significant in any of our regression model). For example, only 13 firms in Venezuela had issued ADRs, only six firms were considered “widely held” at the 20 percent level (meaning that no single shareholder or group holds more than 20 percent of the firm shares) and only two firms were considered widely held at the 10 percent level (Banco de Venezuela

²⁵ See Jensen and Murphy (1990) and Mork, Shleifer and Vishny (1988); for the emerging economies see Gomes (2000).

1986-1999, and Banco Provincial, 1984-1993). This evidence shows the high ownership concentration in our sample; moreover, ultimate ownership was fully identified in only 32 of the 51 firms in our sample (individuals, families or business groups). Therefore, it is possible that ownership concentration is even higher when pyramidal ownership is considered in greater detail.²⁶ This demonstrates low *between-firm* variability, which could have an important impact on the power of the ownership variables in our statistical test.

Although in our sample 31 firms had drastic changes in their ownership structure, once the change had occurred, the ownership structure tended to remain very stable throughout the period that was analyzed. Moreover, in 20 firms the ownership structure remained almost unchanged for the whole sample period. This demonstrates low *within-firm* variability, which could be reducing the statistical power of our ownership variables.

5.4. Endogeneity Problem

The variable *CEOTUR* and each of the performance measures are likely to be endogenous. This is a serious problem because it violates the crucial assumption that regressors are either non-stochastic or, if they are stochastic, they are distributed independently of the stochastic disturbance term. Therefore, the estimated coefficients are not only biased but are also inconsistent.

We deal with this problem in two ways: first, since *CEOTUR*, *ROAA*, *ROEA* and *NEGINC* are likely to be endogenous, we use in our results—reported in Tables 8, 9 and 10—the lag value of the performance measures and not the current value (although the results are similar when using the current values). Also, the main results remain unaltered when we use panel data fixed effect specifications, which are known to alleviate endogeneity problems (Hermalin and Weisbach, 1991; Himmelberg et al. 1999). However, we do recognize that the use of lag performance variables and fixed effect specification do not necessarily eliminate the potentially spurious relation between CEO turnover (and Director turnover) and firm performance. For that reason, to alleviate our endogeneity concerns we perform an instrumental variable analysis as a measure of robustness to our previous results.

²⁶ For the 51 firms in our sample we have identified the shareholders with higher firm ownership (usually more than 10 percent of the firm book value); however, in 19 cases the name of the ultimate owner was not identified due to the existence of pyramidal structures, which are very common in Venezuela. In some cases the ultimate owner was identified for a period of time but not for the whole 19 years of our sample.

One of the main problems in the instrumental variable analysis is to find a truly exogenous variable (instruments) that affect performance but not the probability of CEO and Director turnover. Ideally, we will want to find an exogenous event like a change in legislation for example that affected all firms in the sample. However, for the period 1984-2002 we were not able to find major changes in the corporate law that could have been likely to be used as an exogenous shock (the current Commercial Code in Venezuela was approved by Congress in 1955). Another problem is the limitation, in terms of the number of variables, of our dataset.

We perform a two-stage estimation using *INVT*A (changes in fixed assets divided by total assets) and *PPTTOSALES* (fixed assets divided by total sales) as instrumental variables.²⁷ The first variable attempts to measure the rate of investment (Opler and Titman, 1994), which is likely to affect the current level of industry-adjusted (but not lagged) ROA, but there is no intuitive reason to assume that this rate of investment will affect CEO and Director turnover as well. The second variable aims to measure a firm's collateral value (Himmelberg et al., 1999) but it could also be considered a measure of firm efficiency in terms of the amount of fixed assets needed to produce a unit of sale. This variable should affect (negatively) the performance coefficient but not, at least intuitively, the CEO and Director turnover.²⁸

Results indicate (not shown in table but available upon request) that the relationship between CEO and Director turnover and performance becomes more negative and more statistically significant. For example, when the dependent variable was *CEOTUR* and the performance variable generated by the two-stage process was the industry-adjusted ROA, the estimated coefficients were more negative: -13.8045 versus -2.2922 (see Table 8); and more statistically significant: $z=-4.80$ versus $z=-2.66$ (see Table 8). For *DIRTUR*, *BODITU* and the other performance measures, the results were similar, since they became more negative (more positive in the case of *NEGINC*) and more statistically significant.

Although the instrument we use may be questionable (as all instruments are), at least we can affirm that if endogeneity is present in our analysis, our results in Tables 8, 9 and 10 are somewhat conservative in terms of the real impact that firm performance has on CEO and Director turnover after endogeneity is explicitly taken into account. This larger effect after

²⁷ We also use as instruments percent change in sales, lag value of unadjusted ROA, lag values of *INVT*A, and lag values of *PPTTOSALE*, with similar results.

²⁸ Another concern was the use of the two-stage approach to estimate a nonlinear model using an endogenous variable. However, Angrist (2000) argues that this concern is more apparent than real because the coefficient estimation does not differ substantially when a nonlinear model is used.

endogeneity is explicitly considered using instrumental variables is also present in Hermalin and Weisbach (1991) and in Himmelberg et al. (1999).

5.5. Forced Turnover

As shown in Table 4, our sample includes 131 CEO turnovers. However, the information in the database does not allow us to determine which of those CEO turnovers were “forced” and which were “natural.” We try to use the age of the CEO to partially control for this effect, but we found a negative and significant coefficient for the variable *CEOAGE*, probably capturing other effects such as CEO entrenchment.

In order to find another variable that we can use as a proxy for CEO turnover, we construct a dummy variable that takes the value of 1 if the CEO is replaced with somebody outside the firm (not previously attending the board of directors) and 0 if the CEO is replaced with somebody inside the firm. We run a set of regressions using this variable called *NEWCEO* (not reported in the paper but available upon request) and, although the sign of the coefficients of *LROAA* and *LROEA* is still negative, they were not statistically significant. In our data set we have only 71 CEO turnovers where the incoming CEO was from outside the firm.

Although there were few observations where *NEWCEO* was equal to 1, our third performance variable, *LNEGINC*, is still statistically significant. Our coefficient for *LNEGINC* was 1.137925 ($z=2.490$) for the random effect model and 1.576682 ($z=3.001$) for the fixed effect model.

We construct another dummy variable called *FORCED* that takes the value of 1 if the CEO that was turned over remained on the board as principal director for at least one year and zero otherwise. In only 65 cases is *FORCED* equal to one. Even when the small number of observations is taken into account, all the performance variables keep the expected sign, and in the case of *LROEA* the coefficients were -0.305591 ($z=-1.829$) for the random effects model and -0.5043 ($z=-1.604$) for the fixed effects model.

6. Conclusions

Results from a questionnaire we conducted on corporate governance practices in Venezuela show that public companies exhibit relatively low overall corporate governance scores, especially in the categories of general principles and officers and the board. The scores on

shareholders and on disclosure and information are relatively better. Overall results from the questionnaire would give Venezuelan firms an index of 54.71 out of 100. To place these results in perspective, mean results for the 14 emerging markets analyzed in Klapper and Love (2002) yielded a very similar score of 54.11. Scores for the two Latin American countries considered in their paper were 57.26 (Brazil) and 61.63 (Chile). Empirical tests reported in the Appendix at the end of the paper suggest that there exists a positive and significant pairwise correlation and Spearman rank correlation between each of the value measures computed (Tobin's *q*, price-to-book, and dividend payout) and the corporate governance index. The correlation between each of the corporate governance sub-indices and CGI is positive, although it is not significant in all cases. Regression analysis is consistent with these results, which ought to be analyzed with care given the small size of the sample.

The univariate test and the Logit regression model provide strong evidence that Hypothesis 1 cannot be rejected. Also, the univariate test, the Poisson and OLS regression models provide strong evidence that Hypothesis 2 cannot be rejected; that is, performance seems to affect the departure of CEOs and directors in our sample of Venezuelan public firms. This finding is consistent with Gibson (2003) in that corporate governance mechanisms in Venezuela seem to ensure that a firm's poor financial performance increases the likelihood that the CEO and the directors will leave the firm, a necessary condition for any corporate governance system to work. The low *between-firm* variability and *within-firm* variability in our ownership concentration variables may explain their lack of statistical power in the regressions.

Our results passed several robustness tests. We used lagged performance variables and panel data fixed effect models to reduce the potential endogeneity between CEO and Director turnover and firm performance. Also, we showed, using an instrumental variable estimation, that when endogeneity is taken explicitly into account the negative relation between turnover and performance becomes more negative and more statistically significant.

We also show that the relation between the CEO and director turnover with the *CEOAGE*, *CEOCHA* and *MEDITU* control variables, respectively, captured some preliminary evidence of CEO and director entrenchment; that is, the older the CEO, the more powerful and the longer the board tenure, the less likely it is to observe turnovers due to poor corporate performance.

Another interesting result is that when the CEO leaves the firm, the directors also leave on average. It therefore seems that the role of board director in this sample of Venezuelan firms is not monitoring but rather advising the CEO. This idea could be added to Yermack's (2004) conjectures that directors might be tempted to abandon the firm when the CEO leaves for at least two reasons: reputation and workload of a restructuring firm. Also, the legal framework in Venezuela makes directors responsible for the administration of the firm; consistent with this role, directors leave the firm when its financial performance deteriorate.

Our survey on corporate governance in Venezuela suggests that, in spite of recent improvements, a number of practices need to be revised. These include the following findings: i) the majority of external auditors are not elected by the firm's audit committee; ii) external auditors are hired for consulting purposes; iii) only a few firms acknowledge having a corporate governance committee; iv) there is a lack of transparency in disclosing a company's ultimate ownership; v) there is a relatively low level of protection of minority shareholders; and vi) there are unsatisfactory levels of disclosure of executive compensation. More work needs to be done in all of these areas.

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Table 1.
Institutional Variables

This table compares the Anti-director Rights, Rule of Law index, Domestic firms listed compared to the country's population, IPO's to the country population, Bank debt outstanding for the private sector to GNP in 1994, and the fraction of minority shareholders capitalization to GNP for Venezuela, Latin America average and U.S.

Variable	Venezuela	Latin America	U.S.
Anti-director rights	1.00	1.89	5.00
Rule of law	6.37	5.03	10.00
Dom. Firms /Population (mill.)	4.28	7.48	30.11
IPO's /Population (mill.)	0.00	0.08	3.11
Debt /GNP	0.10	0.29	0.81
External Cap./GNP	0.08	0.27	0.58

Source: LLSV (1997).

Table 2.
Index on Corporate Governance for Venezuela (2004)

Panel A: Information about the Questionnaire on Corporate Governance in Venezuela

Sample	Number of firms	Percentage of total listed firms	Percentage of total market capitalization
Companies contacted	57	100%	100%
Filled questionnaires	31	54.4%	87%

Source: Datastream, own sources.

Panel B: Summary of Results and Comparison to Chile (Lefort and Walker, 2005)

Questions with “Yes” or “No” Answers

Category	Number of questions: Venezuela	Average score: Venezuela	Number of questions: Chile	Average score: Chile
I. General principles	7	3.22	7	2.63
II. Officers and the board	25	3.92	26	4.54
III. Shareholders	24	3.78	20	4.18
IV. Disclosure and information	14	4.26	14	5.14
Total / average	71	3.79	67	4.12

Panel C: Questionnaire on Corporate Governance for Venezuela, Binary Questions

#	Question	Number of Yes	Number of No	No answers	Average score
	About General Principles				3.22
1	Has the company issued a mission statement that explicitly places a priority on good corporate governance?	19	12	0	4.29
2	Does the company's Annual Report include a section devoted to the company's performance in implementing corporate governance principles?	18	13	0	4.06
3	Does the company have a code of conduct with corporate governance principles?	21	10	0	4.74
4	Does the company adhere to an international code of corporate governance best practices?	11	18	2	2.66
5	Has the company issued stocks or bonds recently?	10	19	2	2.41
7	Is the company listed on a major foreign stock exchange?	5	26	0	1.13

About Officers and the Board					3.92
8	Are full board meetings held at least once a quarter?	30	1	0	6.77
10	Are board members allowed to send substitutes?	6	25	0	1.35
11	Is the Chairman of the Board and the CEO the same person?	14	17	0	3.84
12	Do the Chairman of the Board and the CEO belong to the same family/controlling group?	13	18	0	3.86
13	Do board members meet alone without management at any time?	14	17	0	3.16
14	Is the Chairman of the Board an independent, non-affiliated director?	13	18	0	4.06
15	Are there any members of the board that are independent board members?	18	13	0	4.06
16	Does the company have an audit committee?	20	11	0	4.52
18	Does the audit committee elect the external auditor?	3	25	3	0.75
19	Does the company have a corporate governance committee?	6	25	0	1.35
21	Are there any foreign nationals on the board?	20	11	0	4.52
22	If a manager or director has a conflict of interest in a transaction (i.e. he owns, is a director of, or works in a firm with whom the company is planning to do the transaction): a) Does he need to disclose such conflict?	25	4	2	6.03
23	Does the company disclose executive compensation and benefits?	19	12	0	4.29
24	Does the company disclose board compensation and benefits?	23	8	0	5.19
25	Does the company disclose ownership by executives?	15	15	1	3.50
26	Does the company disclose ownership by board members?	15	15	1	3.50

#	Question	Number of Yes	Number of No	No answers	Average score
27	Is any board member also a board member/executive of firms belonging to the same economic group?	17	14	0	3.84
28	Does the board include representatives of banks and other large creditors of the company?	4	27	0	0.90
29	Has there been any sanction to the board or management for violations of Securities and/or Corporations laws in the last three years?	0	31	0	7.00
30	Have board members been sanctioned for violations of their general duties in the last three years?	0	31	0	7.00
31	Has the board received any complains from shareholders in the last three years?	2	29	0	6.55
32	Is senior management remuneration tied to the value of company shares?	1	30	0	0.23
About Shareholders					3.78
33	Does each share have one vote?	30	1	0	6.77
34	Are there multiple voting shares?	0	31	0	7.00
35	Are there shares without votes (non-voting shares) different than preferred shares?	2	29	0	6.55
36	Do any major shareholders of the company hold a disproportionate fraction of control rights with respect to his/her cash flow rights (deviations of one-share-one-vote)?	5	26	0	5.87
37	Do shareholders have to be present in the meeting to vote?	15	14	2	3.38
39	Can shareholders ask management to include items in the list of topics to be dealt with during the shareholders' meetings?	10	19	2	2.41
40	Does the company disclose its ownership structure (i.e. the ownership by large shareholders)?	21	9	1	4.90
41	Has there been any sanction to the board or management for insider trading and self-dealing rights in the last three years?	0	31	0	7.00
42	Do shareholders with conflicts of interest in transactions need to disclose the conflicts if it goes to a vote to the meeting?	18	10	3	4.50

43	Do minority shareholders have a mechanism that entitles them to board representation?	20	11	0	4.52
44	Is there cumulative voting or proportional representation for shareholders to get represented in the Board of Directors?	4	27	0	0.90
45	Do minority shareholders have veto rights over key operating and business decisions?	2	29	0	0.45
46	Are there super-majority rules that apply to some key operating and business decisions?	6	24	1	1.40
47	Do minority shareholders have right of first refusal to purchase additional shares at the same price they are offered to a third party?	15	15	1	3.50
48	Can minority-shareholders have access to preferred stocks that may be convertible in common stocks, thus possessing redemption rights and forcing the control group to buy them later?	2	28	1	0.47
49	Can minority-shareholders have tag-along rights to sell shares at the same price as the controlling shareholder rights when the company is sold?	9	19	3	2.25
#	Question	Number of Yes	Number of No	No answers	Average score
50	Has there been any sanction to the board or management for violations of minority shareholder rights in the last three years?	1	30	0	6.78
51	Are there any mechanisms that the company offers to redress dissenting minorities?	2	29	0	0.47
55	Is the controller a foreign national?	15	16	0	3.39
56	Is the controller also part of the management of the company?	14	17	0	3.16
About Disclosure and Information					4.26
58	Are accounts presented according to IGAAP?	19	9	3	4.75
59	Has the company been sanctioned for failure to publish company reports timely in the last three years?	0	31	0	7.00
60	Does the company publish its Annual Report within four months of the end of the financial year?	29	2	0	6.55
61	Does the company publish/announce semi-annual reports within two months of the end of the half-year?	23	8	0	5.19

62	Does the company publish/announce quarterly reports within two months of the end of the quarter?	17	14	0	3.84
63	Has the public announcement of results been no longer than two working days of the board meeting?	8	23	0	1.81
64	Has management disclose three-year performance targets?	20	11	0	4.52
65	Is the external auditing company internationally recognized?	29	2	0	6.55
66	Has the company hired its external auditors for consulting purposes in the last three years?	14	17	0	3.16
67	Does the company have a website where results and other announcements are updated promptly (no later than one business day)?	19	12	0	4.29
68	Does the company disclose ownership information?	16	15	0	3.61
69	Does the company disclose ultimate ownership information?	7	24	0	1.63
70	Does the company disclose compensation information?	15	16	0	3.39
71	Does the company disclose related party transactions and/or conflicts of interest of managers and directors on the board?	15	16	0	3.39

Notes: The questionnaire was given in Spanish between March 2004 and January 2005. The English translation of the questionnaire was taken from Lefort and Walker (2005), except for questions 53, 54, 55, 56, and 57, which are in our questionnaire but not in theirs, and except for a few other questions. A “yes” answer indicates a better corporate governance practice and it is assigned a value of 1, except for those questions for which a “yes” answer would indicate a bad corporate governance practice. Answers are then averaged and normalized for each question from 0 to 7, where 7 corresponds to the highest possible value of a corporate governance practice. Question 20 is not reported in either this or the next Panel. Answers to this question are available upon request.

Panel D: Questionnaire on Corporate Governance for Venezuela, Open Questions

#	Question	Mean	Median	Minimum	Maximum
About General Principles					
6	What percentage of the company's shares are traded in the stock market?	25.6%	10.5%	0%	100%
About Officers and the Board					
9	How many principal members has the Board of Directors?	8.5	8.0	4	18
17	How many members of the Board of Directors are also members of the Audit Committee? (Only for companies that acknowledged having an Audit Committee)	3.5	3.0	0	8
About Shareholders					
38	What percentage of the company's stock is necessary to call an extraordinary shareholder meeting?	38%	20%	20%	80%
52	What percentage of the company's stock is directly or indirectly controlled by the controlling shareholder?	48.1	53.0%	23%	100%
53	How many groups of blockholders posses at least 10% of the firm's equity?	2.2	2.0	0	5
54	How many groups of blockholders posses at least 20% of the firm's equity?	1.4	1.0	0	3
57	How many principal members of the Board of Directors represent the controlling shareholder?	3.2	20	0	10

Table 3. Variable Description

VARIABLE	DESCRIPTION
Turnover	
<i>CEOTUR</i>	Equals one when there is a change in CEO for each firm <i>i</i> and for each year <i>t</i> .
<i>LCEOTUR</i>	One-year lagged <i>CEOTUR</i> .
<i>DIRTUR</i>	Equals one when there is a change in a director for each firm <i>i</i> and for each year <i>t</i> .
<i>LDIRTUR</i>	One-year lagged <i>DIRTUR</i> .
<i>BODITU</i>	Fraction of the board that turned over for firm <i>i</i> in year <i>t</i> . <i>NUMDIR</i> divided by <i>BOASIZ</i> in year <i>t-1</i> .
<i>FORCED</i>	Equals one when there is a change in CEO for each firm <i>i</i> and for each year <i>t</i> and the departing CEO does not remain in the board.
<i>NEWCEO</i>	Equals one when there is a change in CEO for each firm <i>i</i> and for each year <i>t</i> and the incoming CEO was not previously in the board.
Board and CEO Characteristics	
<i>BOASIZ</i>	Size of the board of directors (number of members) for each firm <i>i</i> and for each year <i>t</i> .
<i>GRADIR</i>	Fraction of the board of directors that are considered to be family related (same last name) to the CEO or to the Chairman of the board for each firm <i>i</i> and for each year <i>t</i> .
<i>INSDIR</i>	Fraction of the board of directors that are considered to be insiders for each firm <i>i</i> and for each year <i>t</i> . A director was classified as an insider when he/she held any managerial position in the firm according to the firm's annual report. If the CEO or the Chairman of the board was replaced but remained in the board of directors, it was classified as an inside director.
<i>OUTDIR</i>	Fraction of the board of directors that are considered to be outsiders for each firm <i>i</i> and for each year <i>t</i> . A director was classified as outsider when he/she was neither an inside director nor a gray director.
<i>INDEPE</i>	Coefficient of independence in the board of directors for each firm <i>i</i> and for year <i>t</i> . It is calculated as the arithmetic difference between <i>OUTDIR</i> and <i>INSDIR</i> .
<i>LPCHAIN</i>	Lagged value of the percentage change in board independence for firm <i>i</i> in year <i>t</i> .

VARIABLE	DESCRIPTION
<i>CEOTEN</i>	Number of years that the CEO remained in office for each firm <i>i</i> and for each year <i>t</i> .
<i>MEDITE</i>	Median number of years that the directors of the board remained appointed for each firm <i>i</i> and for each year <i>t</i> .
<i>DIRTEN</i>	Average number of years that the directors of the board remained appointed for each firm <i>i</i> and for each year <i>t</i> .
<i>CEOAGE</i>	Years of age of the CEO of firm <i>i</i> in year <i>t</i> . <i>Source</i> : Venezuelan electoral body (<i>Consejo Nacional Electoral</i>) database or the firm's human resources department.
<i>CEOCHA</i>	Equals to one when the CEO is also the chairman of the board for each firm <i>i</i> in year <i>t</i> .
Performance	
<i>ROA</i>	Return on assets. It is calculated as the ratio of earnings before interest and taxes to end of year total assets for each firm <i>i</i> and for each year <i>t</i> .
<i>LROA</i>	One-year lagged <i>ROA</i> .
<i>ROAA</i>	Return on assets adjusted by industry. It is calculated for each firm <i>i</i> and for each year <i>t</i> as the ratio of earnings before interest and taxes to end of year total assets less the median <i>ROA</i> for all firms that belong to the same industry for year <i>t</i> . Firms were classified in the following three industries: manufacturing, financial, and services and others.
<i>LROAA</i>	One-year lagged <i>ROAA</i> .
<i>ROE</i>	Return on equity. It is calculated for each firm <i>i</i> and for each year <i>t</i> as the ratio of earnings before interest and taxes to end of year total equity.
<i>LROE</i>	One-year lagged <i>ROE</i> .
<i>ROEA</i>	Return on equity adjusted by industry. It is calculated for each firm <i>i</i> and for each year <i>t</i> as the ratio of earnings before interest and taxes to end of year total equity less the median <i>ROE</i> for all firms that belong to the same industry for year <i>t</i> . Firms were classified in the following three industries: manufacturing, financial, and services and others.
<i>LROEA</i>	One-year lagged <i>ROEA</i> .
<i>NEGAINC</i>	Equals one when firm <i>i</i> reported a negative net income in year <i>t</i> .
<i>LNEGAINC</i>	One-year lagged <i>NEGAINC</i> .

VARIABLE	DESCRIPTION
Other Variables	
<i>FSIZE</i>	Natural logarithm of each firm <i>i</i> 's year-end total assets in each year <i>t</i> .
<i>FSIZEB</i>	Year-end book value of assets, reported in U.S. dollars, using each years' average exchange rate. The source of the average exchange rate Bolivar / U.S. Dollar is the Venezuelan Central Bank's web page (www.bcv.gov.ve).
<i>OWNCON</i>	Fraction of book value of firm <i>i</i> held by the major stockholder during each year <i>t</i> in the sample. <i>Source</i> : Ownership reports and legally certified stockholders minutes all taken from the <i>Comisión Nacional de Valores</i> .
<i>BLOHOL</i>	Number of shareholders with more than 20 percent of the book value of firm <i>i</i> during each year <i>t</i> in the sample. <i>Source</i> : ownership reports and legally certified stockholders minutes, all taken from the <i>Comisión Nacional de Valores</i> .
<i>ADRUSA</i>	Dummy variable that takes the value of 1 if firm <i>i</i> in year <i>t</i> has ADR's trading in the USA and zero otherwise.
<i>YEACON</i>	Number of years since the incorporation of each firm <i>i</i> in year <i>t</i> .
<i>CASTR</i>	Leverage ratio measured as the year-end total debt to total assets.
<i>PERIOD2</i>	Equals one when the observation <i>it</i> was taken from year 1991 to 1996 (inclusive) and 0 otherwise.
<i>INVT</i>	Changes in fixed assets divided by total assets for each firm <i>i</i> and for each year <i>t</i> .
<i>PPTTOSALES</i>	Fixed assets divided by total sales for each firm <i>i</i> and for each year <i>t</i> .
<i>TOBIN'S q</i>	It is computed as the ratio of market value to book value of assets. Market value is the market value of equity plus the book value of assets minus the book value of equity. They are all computed at the end of 2004.
<i>PRICE-TO-BOOK</i>	Market value divided by book value at the end of 2004. Market value and book value were obtained from <i>Economatica</i> and <i>Datastream</i> .
<i>DIVIDEND PAYOUT</i>	Cash and stock dividends divided by net income. Data correspond to 2003. They are all computed at year-end values and were obtained from the <i>Anuario de la Bolsa de Valores de Caracas</i> (2003).
<i>VOLATILITY</i>	Annualized standard deviation of monthly stock returns for the three years previous to the computation of Tobin's <i>q</i> . For a number of firms no monthly stock returns were recorded on some months since shares did not trade. Data was obtained from <i>Economatica</i> and <i>Datastream</i> and the <i>Anuario de la Bolsa de Valores de Caracas</i> (2003).
<i>LEVERAGE</i>	Non-equity liabilities divided by total assets at the end of 2004. Data was obtained from <i>Economatica</i> and the companies financial proxies.

VARIABLE	DESCRIPTION
<i>SIZE</i>	Natural logarithm of book value of total assets in millions of Venezuelan Bolivars at the end of 2004. Data was obtained from <i>Economatica</i> and the companies financial proxies.
<i>ROA2</i>	Operating income divided by total assets at the end of 2004. Data was obtained from <i>Economatica</i> and the companies financial proxies.
<i>GROWTH</i>	Average annual growth of sales between the end of 2000 and the end of 2004. Data was obtained from <i>Economatica</i> , the <i>Anuario de la Bolsa de Valores de Caracas</i> (2003), and the companies financial proxies.

Note: The source of the information of those variables whose source has not been explicitly identified in this table is the firm's annual financial proxies and the firms' investors' relations office.

Table 4. Database Description

The database used in this study is composed of 878 firm-year observations of a sample of 51 firms listed in the Caracas Stock Exchange from 1984 to 2002.

Panel A: Distribution of sample observations

Firms	Years in sample	Total Firm-year observations	Number of CEO Turnovers	Number of Director Turnovers
33	19	627	90	629
2	18	36	9	45
4	17	68	9	87
2	16	32	3	33
1	15	15	0	11
1	13	13	0	5
2	12	24	6	43
4	11	44	10	71
1	10	10	2	12
1	9	9	2	10
51		878	131	946

Panel B: Distribution of sector

Sector	Number of firms	Percentage	Observations	Percentage
Manufacturing	26	50.98%	446	50.80%
Financial	17	33.33%	291	33.14%
Service and others	8	15.69%	141	16.06%
	51		878	

Panel C: Coverage

Year	Sample Firms	Total Firms	Coverage
1984	40	89	44.94%
1985	41	83	49.40%
1986	41	83	49.40%
1987	41	78	52.56%
1988	42	74	56.76%
1989	43	75	57.33%
1990	44	76	57.89%
1991	46	76	60.53%
1992	49	72	68.06%
1993	51	54	94.44%
1994	51	54	94.44%
1995	51	57	89.47%
1996	51	57	89.47%
1997	51	62	82.26%
1998	51	73	69.86%
1999	51	63	80.95%
2000	49	67	73.13%
2001	45	63	71.43%
2002	41	59	69.49%

Source: Caracas Stock Exchange's Yearbooks (Anuarios de la Bolsa de Valores de Caracas) and annual financial proxies.

Table 5. Summary Statistics for Selected Variables

This table reports the mean, median and standard deviation of a set of select variables calculated as of 1984, 1987, 1990, 1993, 1996, 1999, and 2002. Number of CEO turnover (*CEOTUR*), number of director turnover (*DIRTUR*), board size (*BOASIZ*), fraction of outside directors (*OUTDIR*), board independence (*INDEPE*), CEO tenure (*CEOTEN*), director tenure (*DIRTEN*), CEO age (*CEOAGE*), return on assets (*ROA*), return on equity (*ROE*), book value of a firm's assets in million of U.S. dollars taking each years' exchange rate (*FSIZEB*), ownership stake of the biggest shareholder (*OWNCON*), and years since incorporation of the firm (*YEACON*). Definitions for each of the variables are provided in Table 3.

Panel A: Turnover

	1984	1987	1990	1993	1996	1999	2002
Variable							
<i>CEOTUR</i>	2	8	2	7	11	7	8
<i>DIRTUR</i>	22	31	22	62	58	44	65

Panel B: Board and CEO characteristics

	1984			1987			1990			1993			1996			1999			2002		
	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.
<i>BOASIZ</i>	7.78	7.00	1.66	7.83	8.00	1.56	8.02	8.00	1.80	8.18	8.00	1.75	8.10	8.00	1.59	8.16	8.00	2.00	8.24	8.00	2.01
<i>OUTDIR</i>	0.53	0.57	0.40	0.54	0.57	0.17	0.55	0.57	0.18	0.53	0.55	0.17	0.54	0.56	0.19	0.53	0.57	0.18	0.54	0.57	0.17
<i>INDEPE</i>	0.13	0.14	0.30	0.15	0.14	0.31	0.15	0.20	0.32	0.12	0.13	0.31	0.15	0.14	0.33	0.11	0.18	0.36	0.15	0.20	0.34
<i>CEOTEN</i>	11.90	8.00	10.06	10.12	6.00	10.94	10.89	7.00	10.45	9.08	4.00	10.69	7.69	4.00	9.66	7.24	4.00	8.91	6.85	3.00	8.64
<i>DIRTEN</i>	10.14	9.95	4.17	10.14	10.14	4.66	10.75	11.11	4.52	8.97	8.14	5.36	7.79	7.80	4.70	8.74	8.18	5.07	7.55	6.83	4.58
<i>CEOAGE</i>	53.50	53.50	10.94	56.83	56.00	10.54	55.91	56.50	9.34	55.63	56.00	11.75	53.78	54.00	11.59	58.22	57.00	9.17	52.27	51.00	9.90

Panel C: Performance

	1984			1987			1990			1993			1996			1999			2002		
	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.
<i>ROA</i>	0.04	0.02	0.07	0.06	0.05	0.06	0.04	0.03	0.08	0.04	0.03	0.07	0.10	0.09	0.15	-0.02	0.02	0.14	0.00	0.02	0.19
<i>ROE</i>	0.12	0.13	0.18	0.21	0.20	0.10	0.13	0.17	0.29	0.12	0.13	0.19	0.19	0.30	0.74	-0.04	0.06	0.37	0.01	0.14	0.59

Panel D: Others

	1984			1987			1990			1993			1996			1999			2002		
	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.
<i>FSIZEB</i>	6.91	6.72	1.64	7.50	7.49	1.76	8.44	8.59	1.93	9.40	9.59	1.79	10.53	10.84	2.22	11.33	11.02	2.11	11.84	11.66	2.25
<i>OWNCON</i>	0.45	0.49	0.25	0.46	0.49	0.25	0.51	0.50	0.25	0.56	0.57	0.26	0.58	0.63	0.26	0.63	0.66	0.24	0.60	0.65	0.24
<i>YEACON</i>	39.18	32.50	21.79	41.22	35.00	22.37	42.45	37.00	22.90	45.80	41.00	22.49	48.80	44.00	22.49	51.80	47.00	22.49	55.39	50.00	22.43

S.D.: Standard deviation

Source: See Table 3.

Table 6. Studies on Firm Performance and CEO and Director Turnover

	Hypotheses, Sample and Period	Main Findings
Firm Performance and CEO Turnover		
Panel A: U.S.		
Coughlan and Schmidt (1985)	This article tests whether both compensation changes and management changes are methods employed to control top management. Furthermore, it is hypothesized that the use of these controls is motivated by the firm's stock price performance.	The authors find support for their hypotheses using public data for the period 1977-1980 and conclude that a firm's board creates managerial incentives that are aligned with those of a firm's owner.
Furtado and Rozeff (1987)	The authors examined <i>The Wall Street Journal</i> between 1975 and 1982 and recorded appointments or dismissals of four corporate posts (Chairman, Vice-Chairman, President and CEO) to examine whether capital markets pay attention to these changes.	Empirical evidence suggests that management changes raise shareholder wealth by signaling shifts in company policy. This is because capital markets respond to news related to management appointments and dismissals.
Weisbach (1988)	Using data on board composition for 495 publicly held companies on the NYSE between 1977 and 1980, the author tests the hypothesis that outside and inside directors behave differently when deciding to remove managers.	The correlation between performance measures and CEO turnover is higher for companies in which outsiders dominate the boards of directors. Also, outsider-dominated boards tend to enhance firm value through their CEO changes.
Warner, Watts and Wruck (1988)	This paper hypothesizes a negative relation between the probability of a top manager change and stock price performance. The sample is made up by 269 companies listed on the NYSE and AMEX. The sample period is 1962-1980.	The authors find an inverse relation between the probability that a manager changes and a company's stock performance. This relation can be explained by either of these three reasons: blockholders, other top managers, or from monitoring by the board.
Mork, Shleifer and Vishny (1988)	Analyzing a cross-section of 371 Fortune 500 companies the authors examine the relationship between management ownership and market valuation of the company.	Evidence suggests that Tobin's Q behaves nonmonotonically as ownership by the board of directors rises; first increasing, then declining, and finally rising slightly.
Gilson (1989)	This article investigates senior management turnover in 381 financially distressed firms between 1979 and 1984 (587 firm-years)	On average, 52% of sampled firms experience management turnover when they are either in default, bankrupt, or privately restructuring their debt. After their resignation from these firms, managers are not hired by another exchange listed firm for at least three years.

Kaplan and Reishus (1990)	Using dividend cuts to measure performance, the paper examines the relation between a firm's performance and its top executives' service on boards of directors of other company's. The sample consists of 101 announcements of dividend cuts by at least 25% during the period 1980-1983.	Top executives of companies that reduce their dividends are 50% less likely to obtain additional outside directorships than are directors of companies that do not cut their dividends.
Jensen and Murphy (1990)	The objective of this paper is to estimate the magnitude of the incentives that are provided by performance-based bonuses and salary revisions, stock options, and performance-based dismissal decisions. The data consists of 1,668 CEOs serving in 1,049 firms for the years 1974-86 and as reported by Forbes.	The authors find that the average CEO wealth changes \$3.25 for every \$1,000 change in stockholder wealth. The authors also find support for the hypothesis that the pay-performance sensitivity has decreased since the 1930s as public and private political forces have imposed constraints.
Martin and McConnell (1991)	This article analyzes the role of corporate takeovers as a disciplinary mechanism of top management. A takeover is disciplinary when there is top executive turnover at the target firm following a takeover. The authors examine 253 successful tender-offer takeovers between 1958 and 1984.	Top executive turnover of target firms increases substantially after a successful tender-offer takeover. Top manager turnover exhibits no difference in hostile and friendly takeovers.
Denis and Denis (1995)	The authors contend that forced resignations of top managers occur after large and significant declines in operating performance and followed by significant improvements in performance. The sample consists of 908 non-takeover related top management turnover announced on <i>The Wall Street Journal</i> between 1985 and 1988.	The authors find support for the hypothesis. Moreover, forced resignations are found to be rare and due to external factors and not to normal board monitoring. After the management changes, firms downsize their operations. Finally, normal retirements are followed by increases in operating income.
Denis, Denis and Sarin (1997)	The authors analyze the effect of ownership structure on internal monitoring efforts studying (non-routine) top management turnover in 1,394 companies between 1985 and 1988.	It is found that ownership structure affects the probability of a change in top management. The likelihood of top management turnover is directly related to the presence of an outside blockholder and inversely related to the ownership stake of directors and officers.
Huson, Parrino and Starks (2001)	In recent years, important changes in both internal and external control mechanisms have been documented. However, the impact of these changes in monitoring quality is not clear. The authors examine CEO turnovers at large public firms between 1974 and 1994 in an attempt to answer this question.	The frequencies of forced CEO turnover and outside succession increased between 1974 and 1994. Also, during the sample period, outsider representation, incentive compensation paid to outside directors and external pressure on directors varied greatly. However, the relation between the likelihood of CEO turnover and firm performance remained stable during this period, even though important changes in internal governance mechanisms took place.

**Panel B:
International**

Kaplan (1994a)	The author investigates the relation between management and supervisory boards turnover and their relation to firm performance in Germany. The sample includes the largest firms in this country during the 1980s.	Management board turnover increases significantly with poor stock performance and with negative earnings. Turnover is, however, unrelated to sales growth and earnings growth. These relations do not change with measures of stock ownership and bank voting power.
Kaplan and Minton (1994)	This article investigates the determinants of appointments of outsider-directors employed by banks or by other nonfinancial firms to the boards of directors of large nonfinancial Japanese firms. The sample includes the 119 publicly traded Japanese industrial corporations that appeared on <i>Fortune Magazine's</i> List of the 500 Largest Foreign Industrials by Sales in 1981.	Appointments of outsider-directors employed by banks or by other nonfinancial firms to the boards of large nonfinancial Japanese firms increase with poor stock performance. In the case of bank directors, appointments also increase with earning losses.
Kang and Shivdasani (1995)	This paper analyzes the role of corporate governance mechanisms in the event of top executive turnovers in Japanese firm's. The sample consists of all 270 nonfinancial companies covered in <i>Moody's International Reports</i> in its 1984 volume.	Top management (nonroutine) turnovers in Japan are related to industry-adjusted return on assets, excess stock returns, and negative operating income. Turnover is not related to industry performance. The authors also find that turnovers' sensitivity to earnings performance is higher for firms with ties to a main bank compared to firms with no such ties.
Brunello, Graziano and Parigi (2000)	The authors examine whether board turnover is higher when firm performance is poor and whether and how the ownership structure of firms influence these results. The sample consists of 72 corporations listed on the Milan Stock Exchange between 1988 and 1996.	Empirical evidence suggests that there is a negative and significant relation between firm performance and CEO turnover. Furthermore, this relation varies depending on the ownership structure of companies: Turnover is higher in firms where a change in the controlling shareholder occurred and lower in family controlled companies.
Volpin (2002)	This article analyzes the determinants of executive turnover and firm valuation in Italy, a country characterized as having low legal protection for investors, firms with controlling shareholders, and notorious pyramidal schemes. The sample includes all Italian nonfinancial firms traded on the Milan Stock Exchange between 1986 and 1997.	The evidence suggests that there is poor governance in Italy since there exists a low sensitivity of turnover to performance and a low Tobin's-Q when: the controlling shareholders are also the top managers, the control is in the hands of one shareholder, and the controlling shareholders own less than 50% of the firm's cash flow.
Kaplan (1994b)	This article examines top executive turnover and compensation in Japan and then compares it to the U.S.	Executive turnover and compensation in Japan is related to earnings, stock returns and sales performance measures. Although the relation is similar between Japanese executives and their U.S. counterparts, the author finds that management turnover in Japan is more sensitive to low income and less sensitive to stock returns than those of U.S. executives.

Renneboog (2000)	Analyzing all public companies listed on the Brussels Stock Exchange between 1989 and 1994, the author examines if poor corporate performance precedes board restructurings and the extent to which, if any, internal governance initiates disciplinary actions.	Top executive turnover is positively related to poor stock return performance, dividend cuts and accounting earnings adjusted by industry. The relation between ownership and top executive replacement is negligible.
Dahya, McConnell and Travlos (2002)	This article analyzes the relationship between CEO turnover and corporate performance after the Cardbury committee issued the <i>Code of Best Practice</i> in 1992. The code recommends that boards of directors in the U.K. include at least three outside directors and that the Chairman and the CEO should not be the same person.	The authors find that after the Cadbury Committee's recommendations in the U.K. were put into effect, the CEO turnover sensitivity to performance increased significantly.
Gibson (2003)	The author tests whether corporate governance mechanisms work in emerging markets. A necessary condition for this requires that CEOs be removed after a period of poor firm performance. The paper examines this link for 1,200 firms in eight emerging markets (Brazil, Chile, India, Korea, Malaysia, Mexico, Taiwan and Thailand) between 1993 and 1997 using the <i>Worldscope</i> database.	Results indicate that: (1) CEOs are more likely to lose their jobs when their firm's performance is poor, and (2) for firms having a large shareholder the link is not present.

Firm Performance and Director Turnover		
Gilson (1990)	This article studies whether corporate ownership and control change when firms default. The sample consists of 111 listed companies that file for bankruptcy or were privately restructuring their debts during the period 1979-1985.	The evidence suggests that corporate defaults trigger changes in the ownership of corporations' residual claims. Corporate defaults also lead to the allocation of rights to mobilize a firm's resources. Directors who resign hold a fewer number of seats on other firm's boards when they depart.
Farrell and Whidbee (2000)	This paper examines the consequences of removing a CEO analyzing whether the directors that forced the CEO to resign are more likely to leave the board than a matched-sample of directors. The sample consists of 66 forced CEO turnovers during the period 1982-1992.	The authors find an increased likelihood of outside director turnover after a forced CEO succession, particularly among directors that are aligned with the outgoing CEO, make poor replacement decisions, and own little equity. Furthermore, outside directors who are not aligned with the CEO and own large equity are rewarded when they replace a poor performing CEO with a CEO that enhances firm performance.

Coles and Hoi (2003)	The authors examine the relation between a board's decision to opt out of the Pennsylvania Senate Bill 1310 (a bill to give more security to directors in the case of takeovers) and the number of subsequent directorships held in the future by these board members. The sample consists of 109 firms incorporated in the state of Pennsylvania that were also listed on NYSE, AMEX or NASDAQ on April 27, 1990, the date when this bill was enacted.	Empirical evidence suggests that directors of firms that opt out the Pennsylvania Senate Bill 1310 are significantly more likely to keep their board seats and three times as likely to gain new board appointments.
Harford (2003)	The author analyzes the financial impact and the number of future board seats held by target directors of a takeover bid examining a sample of 1,091 directors from 91 firms targeted during the period 1988-1991.	It is found that it is unusual for a director to hold his or her post after a completed offer. Also, targeted directors hold a fewer number of directorships in the future. The financial impact of a completed merger is negative for outside directors suggesting a cost to outside directors when they fail as monitors.

Table 7. Correlation Matrix for the Pooled Turnover and Performance Variables

The total sample consists of 878 firm-year observations of 51 firms listed on the Caracas Stock Exchange from 1984 to 2002. Correlations are calculated pooling all observations in the sample. See Table 3 for the description of all the variables reported in this table. The coefficients reported are the pair-wise correlation coefficients. ***, **, and *, represent statistically significant coefficients at the 1, 5 and 10 percent levels, respectively.

Performance Variables	Turnover Variables		
	CEOTUR	DIRTUR	BODITU
ROA	-0.1132^{***}	-0.1991^{***}	-0.1571^{***}
ROAA	-0.1077^{***}	-0.1948^{***}	-0.1512^{***}
LROA	-0.1127^{***}	-0.1311^{***}	-0.1188^{***}
LROAA	-0.1043^{***}	-0.1237^{***}	-0.1113^{***}
ROE	-0.0667^{**}	-0.0858^{**}	-0.0580[*]
ROEA	-0.0685^{**}	-0.0981^{***}	-0.0685^{**}
LROE	-0.1289^{***}	-0.1421^{***}	-0.1475^{***}
LROEA	-0.1401^{***}	-0.1552^{***}	-0.1623^{***}
NEGINC	0.1237^{***}	0.1385^{***}	0.1439^{***}
LNEGINC	0.1396^{***}	0.1729^{***}	0.1844^{***}

Source: See Table 3.

Table 8. Panel Data Logit Regression on CEO Turnover

The total sample consists of 878 firm-year observations of 51 firms listed in the Caracas Stock Exchange from 1984 to 2002. We perform a Logit regression using as the dependent variable, *CEOTUR*. The performance variables are *LROAA*, *LROEA*, and *LNEGINC*. We control for CEO characteristics using *CEOAGE* and *CEOCHA*. We control for board characteristics using *LDIRTUR*, *LPCHAIN* and *MEDITE*. We control for blockholding ownership using *BLOHOL*. We control for firm' characteristics using *FSIZE* and *CASTR*. And we control for time periods using *PERIOD2*. Definitions for each of the variables are given in Table 3. ***, **, and * represent statistically significant coefficients at the 1, 5, and 10 percent levels, respectively.

CEOTUR						
Variables	Random Effects (1)	Fixed Effects (2)	Random Effects (3)	Fixed Effects (4)	Random Effects (5)	Fixed Effects (6)
Intercept	2.0692^{***} z=2.73		1.9402^{***} z=2.56		1.6714^{**} z=2.04	
LROAA	-2.2922^{***} z=-2.66	-2.4041^{**} z=-1.96				
LROEA			-0.2537 z=-1.32	-0.0195 z=-0.11		
LNEGINC					1.0135^{***} z=3.48	0.8293^{**} z=2.41
CEOAGE	-0.0449^{***} z=-2.57	-0.0583^{***} z=-3.58	-0.0463^{***} z=-2.62	-0.0618^{***} z=-3.79	-0.0435^{**} z=-2.45	-0.0572^{***} z=-3.50
CEOCHA	-0.3201 z=-1.11	-1.0372^{***} z=-2.57	-0.2695 z=-0.93	-1.0168^{**} z=-2.52	-0.3097 z=-1.09	-1.0595^{**} z=-2.56
LDIRTUR	-0.2724^{***} z=-3.13	-0.3370^{***} z=-4.67	-0.2674^{***} z=-2.97	-0.3263^{***} z=-4.56	-0.2898^{***} z=-3.21	-0.3417^{***} z=-4.70
LPCHAIN	0.2149[*] z=1.75	0.1308 z=0.88	0.1773 z=1.30	0.1234 z=0.84	0.2296^{**} z=1.97	0.1513 z=1.03
MEDITE	-0.2198^{***} z=-3.86	-0.2446^{***} z=-5.64	-0.2120^{***} z=-3.64	-0.2487^{***} z=-5.71	-0.2119^{***} z=-3.84	-0.2489^{***} z=-5.70
BLOHOL	-0.1370 z=-0.74	0.1699 z=0.70	-0.1199 z=-0.63	0.1550 z=0.64	-0.0941 z=-0.51	0.1644 z=0.68
FSIZE	0.0990^{**} z=1.98	0.1487[*] z=1.82	0.1044^{**} z=2.06	0.1459[*] z=1.81	0.0986^{**} z=1.97	0.1088 z=1.32
CASTR	-0.7067 z=1.39	1.4310^{**} z=2.04	-0.6551 z=-1.28	1.4748^{**} z=2.13	-0.6235 z=-1.26	1.0543 z=1.44
PERIOD2	0.0070 z=0.04	0.2189 z=0.90	0.0405 z=0.23	0.2557 z=1.06	0.0757 z=0.44	0.2653 z=1.09
Observations	827	737	827	737	827	737
Wald	120.16 ^{***}		116.82 ^{***}		105.70 ^{***}	
LR Chi (10)		118.16 ^{***}		114.28 ^{***}		120.04 ^{***}
Hausman	24.22 ^{***}		18.10 [*]		15.99 [*]	

Source: See Table 3.

Table 9. Panel Data Poisson Regression on the Number of Director Turnover

The total sample consists of 878 firm-year observations of 51 firms listed in the Caracas Stock Exchange from 1984 to 2002. We perform a Poisson regression using as a dependent variable, *DIRTUR*. The performance variables are *LROAA*, *LROEA*, and *LNEGINC*. We control for board characteristics using *MEDITE* and *CEOCHA*. We control for CEO characteristics using *LCEOTUR*. We control for blockholding ownership using *BLOHOL* and *ADRUSA*. We control for firm characteristics using *FSIZE* and *CASTR*. And we control for time periods using *PERIOD2*. Definitions for each of the variables are given in Table 3. ***, **, and * represent statistically significant coefficients at the 1, 5, and 10 percent levels, respectively.

DIRTUR						
Variables	Random Effects (1)	Fixed Effects (2)	Random Effects (3)	Fixed Effects (4)	Random Effects (5)	Fixed Effects (6)
Intercept	0.4791 z=1.50		0.4698 z=1.46		0.3593 z=1.03	
LROAA	-0.9112** z=-2.22	-0.7396** z=-2.42				
LROEA			-0.0894** z=-2.35	-0.0636 z=-1.52		
LNEGINC					0.4595*** z=2.81	0.4087*** z=3.96
MEDITE	-0.1972*** z=-8.05	-0.1734*** z=-14.06	-0.1947*** z=-7.78	-0.1747*** z=-14.09	-0.1848*** z=-7.14	-0.1691*** z=-13.69
CEOCHA	0.0213 z=0.19	-0.1446 z=-1.22	0.0374 z=0.34	-0.1506 z=-1.26	0.0201 z=0.17	-0.1572 z=-1.30
LCEOTUR	-0.5927** z=-2.42	-0.6423*** z=-6.28	-0.5567** z=-2.28	-0.6226*** z=-6.10	-0.5871** z=-2.41	-0.6422*** z=-6.27
BLOHOL	-0.0557 z=-0.84	-0.0400 z=-0.54	-0.0438 z=-0.67	0.0382 z=0.51	-0.0308 z=-0.51	0.0414 z=0.56
ADRUSA	0.2223* z=1.76	0.1896 z=1.07	0.2682** z=2.21	0.2378 z=1.35	0.1624 z=1.19	0.1778 z=1.00
FSIZE	0.07330*** z=3.89	0.1121*** z=4.12	0.0719*** z=3.93	0.1066*** z=3.92	0.0725*** z=3.84	0.0920*** z=3.35
CASTR	0.0223 z=0.09	0.3676* z=1.89	-0.0181 z=-0.07	0.3252 z=1.62	-0.0185 z=-0.08	0.1979 z=0.98
PERIOD2	0.1991** z=2.08	0.2447*** z=3.45	0.2082** z=2.21	0.2527*** z=3.57	0.2064** z=2.15	0.2553*** z=3.59
Observations	827	827	827	827	827	827
Wald Chi (9)	171.59***	299.74***	172.84***	297.86***	247.13***	315.23***
Hausman	119.54***		1126.88***		60.88***	

Source: See Table 3.

Table 10. Panel Data OLS Regression on the Percentage of Director Turnover

The total sample consists of 878 firm-year observations of 51 firms listed in the Caracas Stock Exchange from 1984 to 2002. We perform an OLS regression using as a dependent variable, *BODITU*. The performance variables are *LROAA*, *LROEA*, and *LNEGINC*. We control for board characteristics using *MEDITE* and *CEOCHA*. We control for CEO characteristics using *LCEOTUR*. We control for blockholding ownership using *OWNERS* and *ADRUSA*. We control for firm characteristics using *FSIZE* and *CASTR*. And we control for time periods using *PERIOD2*. Definitions for each of the variables are given in Table 3. ***, **, and * represent statistically significant coefficients at the 1, 5, and 10 percent levels, respectively.

BODITU						
Variables	Random Effects (1)	Fixed Effects (2)	Random Effects (3)	Fixed Effects (4)	Random Effects (5)	Fixed Effects (6)
Intercept	0.1890 *** z=4.13	0.1749 t=0.84	0.1779 *** z=3.92	0.0808 t=0.91	0.1476 *** z=3.09	0.1523 * t=1.69
LROAA	-0.1794 * z=-1.74	-0.1755 ** t=-2.20				
LROEA			-0.0422 ** z=-2.05	-0.0327 ** t=-1.97		
LNEGINC					0.1492 *** z=3.99	0.1390 *** t=4.75
MEDITE	-0.0172 *** z=-6.36	-0.0176 *** t=-8.59	-0.0170 *** z=-6.38	-0.0177 *** t=-8.60	-0.0166 *** z=-6.44	-0.0175 *** t=-8.61
CEOCHA	0.0357 * z=1.87	-0.0063 t=-0.20	0.0354 z=1.85	-0.0033 t=-0.11	0.0372 ** z=2.05	-0.0028 t=-0.09
LCEOTUR	-0.0707 ** z=-2.09	-0.1069 *** t=-4.13	-0.0687 ** z=-2.00	-0.1030 *** t=-3.99	-0.0794 ** z=-2.32	-0.1085 *** t=-4.21
BLOHOL	-0.0026 z=-0.28	0.0084 t=0.47	-0.0020 z=-0.23	0.0091 t=0.51	0.0041 z=0.47	0.0024 t=0.12
ADRUSA	0.0009 z=0.04	0.0143 t=0.34	0.0015 z=0.07	0.0210 t=0.51	-0.0202 z=-0.83	-0.0139 t=0.34
FSIZE	0.0111 *** z=2.97	0.0200 *** t=3.10	0.0115 *** z=3.01	0.0194 *** t=3.01	0.0117 *** z=3.17	0.0140 ** t=2.18
CASTR	-0.0566 z=-1.22	0.0202 t=0.36	-0.0514 z=-1.14	0.0108 t=0.19	-0.0541 z=-1.20	-0.0367 t=-0.65
PERIOD2	0.0223 z=1.40	0.0220 t=1.23	0.0244 z=1.53	0.0237 t=1.33	0.0283 * z=1.90	0.0272 t=1.54
Observations	827	827	827	827	827	827
Wald Chi2(9)	78.13***		73.42***		109.59***	
F(9,767)		12.82***		12.70***		15.09***
R ² (overall)		0.1192		0.1237		0.1618
Hausman	10.46		7.26		3.26	

Source: See Table 3.

Appendix

Corporate Governance Practices in Venezuela and Value Measures: Non-Parametric Tests and Regression Analysis

In this Appendix we present a brief analysis of three non-parametric tests (pairwise correlation, Spearman rank correlation, and a test of equality of means) on the relation between a set of three value measures (Tobin's q, price-to-book, and dividend payout) and the corporate governance index (CGI) corresponding to the sample of Venezuelan firms and presented in Table 2.²⁹ We resort to nonparametric tests given the small size of our sample of firms and given that the questionnaire was conducted for only one year (2004).³⁰ We also present results arising from regression analysis.

LLSV (1998, 2000b, and 2002) contend and find evidence that better shareholder protection is related to a higher valuation of corporate assets. This is because outside investors are willing to pay more for corporate assets when shareholders are protected. Gompers, Ishii and Metrick (2003) find, using data from the Investor Responsibility Research Center (IRRC), that firms with fewer shareholder rights have lower stock returns and firm valuations. These authors use Tobin's q as their single valuation measure.³¹ Fenn and Liang (2001) use, in turn, dividend yields as their value measure.

Table A.1. presents a pairwise correlation matrix for the corporate governance index and sub-indices and the three value measures. There exists a positive and significant correlation between each of the value measures and the CGI. The correlation between each of the corporate governance sub-indices and CGI is positive and significant at the 1 percent level in all cases. Among the corporate governance sub-indices, only the correlation between *officers and the board* and each of the three value measures is positive and significant. The correlation between *general principles* and dividend payout is positive and significant. The correlation between

²⁹ We have already cautioned about the potential problems arising from using market related measures such as Tobin's q and price-to-book ratios in illiquid markets such as the Caracas Stock Exchange.

³⁰ Out of the 31 firms that answered the questionnaire it was possible to only include 20 firms in the tests presented in this Appendix. These were the only companies for which meaningful market related data existed during 2003 and 2004. The other 11 companies did not trade at all on the Caracas Stock Exchange or traded very infrequently during 2004. A survivorship bias may be present in our results since governance practices of listed firms are probably better to those of de-listed firms or of firms that are private (Leal and Carvalhal da Silva, 2005).

³¹ Demsetz and Lehn (1985), Morck, Shleifer and Vishny (1998), and Bebchuk and Cohen (2004) have also used Tobin's q as a valuation measure.

disclosure and information and Tobin's q and between *disclosure and information* and dividend payout is positive and significant.

In Table A.2. we report results of Spearman rank correlations between the corporate governance index and sub-indices and the three value measures. Results for the CGI are similar to those presented in Table A.1. They show a positive and significant rank correlation between CGI and each of the three value measures. The rank correlation between each of the corporate governance sub-indices and the value measures is positive, although it is not significant in all cases, except in the case of *disclosure and information*.

Table A.3. presents a two-sample t test of means with equal variances. The means of firms possessing a Tobin's q above average are significantly different to the means of firms possessing a Tobin's q below the average. The same result is found when the test is done on the price-to-book ratio but can not be found when the test is done using our third value measure, dividend payout.

Table A.1.

Pairwise Correlation Matrix for the Corporate Governance Index and Sub-Indices and Value Measures

Definitions for each of the variables are given in Table 3. The corporate governance index and sub-indices are presented in Section II.3. and in Table 2.

***, **, and * represent statistically significant coefficients at the 1, 5, and 10 percent levels, respectively.

p-values are presented below each correlation coefficient.

	<i>Value measures</i>			<i>Corporate Governance Measures</i>				
	Tobin's q	Price-to-Book Ratio	Dividend Payout	Corporate Governance Index	General Principles	Officers and the Board	Shareholders	Disclosure and Info
Tobin's q	1.0000							
Price-to-Book Ratio	0.7753*** 0.0001	1.0000						
Dividend Payout	0.4668** 0.0388	0.2032 0.3901	1.0000					
Corporate Governance I.	0.5388** 0.0142	0.4287* 0.0593	0.5167** 0.0197	1.0000				
General Principles	0.3390 0.1437	0.0498 0.8348	0.5014** 0.0243	0.5857*** 0.0067	1.0000			
Officers and the Board	0.4466** 0.0484	0.4462** 0.0486	0.4011* 0.0796	0.7908*** 0.0000	0.4923** 0.0275	1.0000		
Shareholders	0.3201 0.1689	0.3585 0.1206	0.1567 0.5095	0.6141*** 0.0040	0.1663 0.4834	0.2629 0.2627	1.0000	
Disclosure and Info	0.4418* 0.0512	0.2959 0.2053	0.3805* 0.0979	0.7632*** 0.0001	0.1965 0.4065	0.4037* 0.0776	0.3923* 0.0871	1.0000

Source: See Table 3.

Table A.2.

Spearman Rank Correlations among the Corporate Governance Index and Sub-Indices and Value Measures

Definitions for each of the variables are given in Table 3. The corporate governance index and sub-indices are presented in Section II.3. and in Table 2.

***, **, and * represent statistically significant coefficients at the 1, 5, and 10 percent levels, respectively.

p-values are presented below each rank correlation coefficient.

	<i>Value measures</i>		
	Tobin's q	Price-to-Book Ratio	Dividend Payout
Corporate Governance I.	0.4991** 0.0251	0.5193** 0.0190	0.6043*** 0.0048
General Principles	0.3994* 0.0811	0.1927 0.4157	0.4420** 0.0500
Officers and the Board	0.3372 0.1460	0.4012* 0.0795	0.5981*** 0.0053
Shareholders	0.3764 0.1019	0.3871* 0.0917	0.2726 0.2440
Disclosure & Information	0.4995** 0.0249	0.4315* 0.0575	0.4323* 0.0569

Source: See Table 3.

Table A.3.**Tests of Equality of Means: Two-Sample T Test with Equal Variances**

Definitions for each of the variables are given in Table 3. ***, **, and * represent statistically significant coefficients at the 1, 5, and 10 percent levels, respectively.

The null hypothesis is that the difference between the two means is equal to 0.

The alternative hypothesis is that means are different from 0.

(i) Tobin's q	Mean	95% confidence interval	
q above average	1.2219	0.9388	1.5051
q below average	0.7509	0.489	1.0128
combined	1.0099	0.8006	1.2193
difference	0.471	0.1049	0.8371
t= 2.7032			
P > t = 0.0146			

(ii) Price-to-Book (PTB)	Mean	95% confidence interval	
PTB above average	1.7482	0.9469	2.5495
PTB below average	0.8767	0.3836	1.3697
combined	1.356	0.8607	1.8513
difference	0.8715	-0.0601	1.8031
t= 1.9655			
P > t = 0.0650			

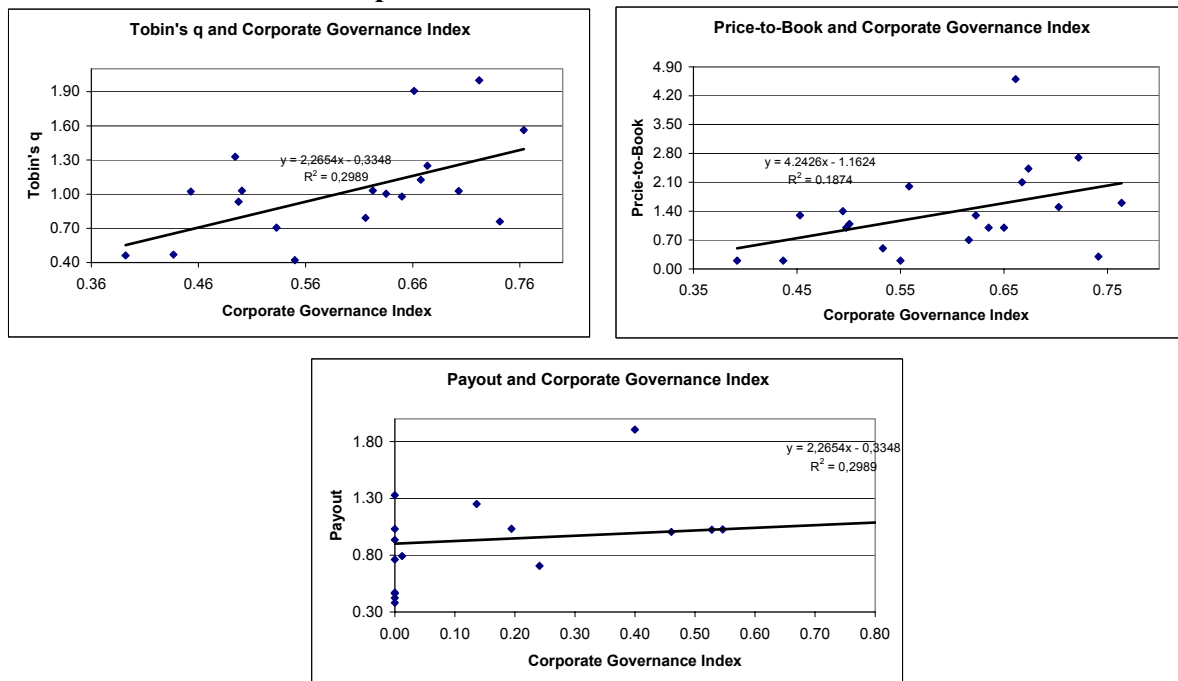
(iii) Dividend Payout (DP)	Mean	95% confidence interval	
DP above average	0.8656	0.0394	1.6918
DP below average	0.3844	-1.4385	2.2174
combined	0.7854	0.1099	1.4608
difference	0.4811	-1.4132	2.3754
t= 0.5659			
P > t = 0.5840			

Source: See Table 3.

We then proceeded to analyze firm value as a function of the CGI and its sub-indices using regression analysis. Our analysis is similar to that presented in Leal and Carvalhal da Silva (2005), and in Lefort and Walker (2005). Unfortunately, and as we mentioned earlier, results from regressions cannot be taken as conclusive evidence since our sample size is very small. Out of the 31 firms that answered the questionnaire it was possible to only include 20 firms in the regressions. These were the companies for which meaningful market related data existed during 2003 and 2004. The other 11 companies did not trade at all on the Caracas Stock Exchange or traded very infrequently during 2004.

In Figure A.1. we present scatter plots of our three value measures (Tobin's q, price-to-book, and dividend payout) and the corporate governance index for these 20 listed firms. There is a positive relationship between each one of these value measures and the corporate governance index for the sample of Venezuelan firms.

Figure A.1. Scatter Plots: Value Measures and Sub-Indices of Corporate Governance Index



Scatter plots in Figures A.2., A.3., and A.4. present the relation between each of the value measures (Tobin's q, price-to-book, and dividend payout) and each of the corporate governance sub-indices (general principles, officers and the board, shareholders, and disclosure and information). In general, and consistent with the nonparametric tests presented before, the relation between each of the corporate governance sub-indices and each of the measures of value is positive and significant. In the next tables, we explore in more detail these relations using regression analysis.

Figure A.2. Scatter Plots: Tobin's q and Sub-Indices of Corporate Governance

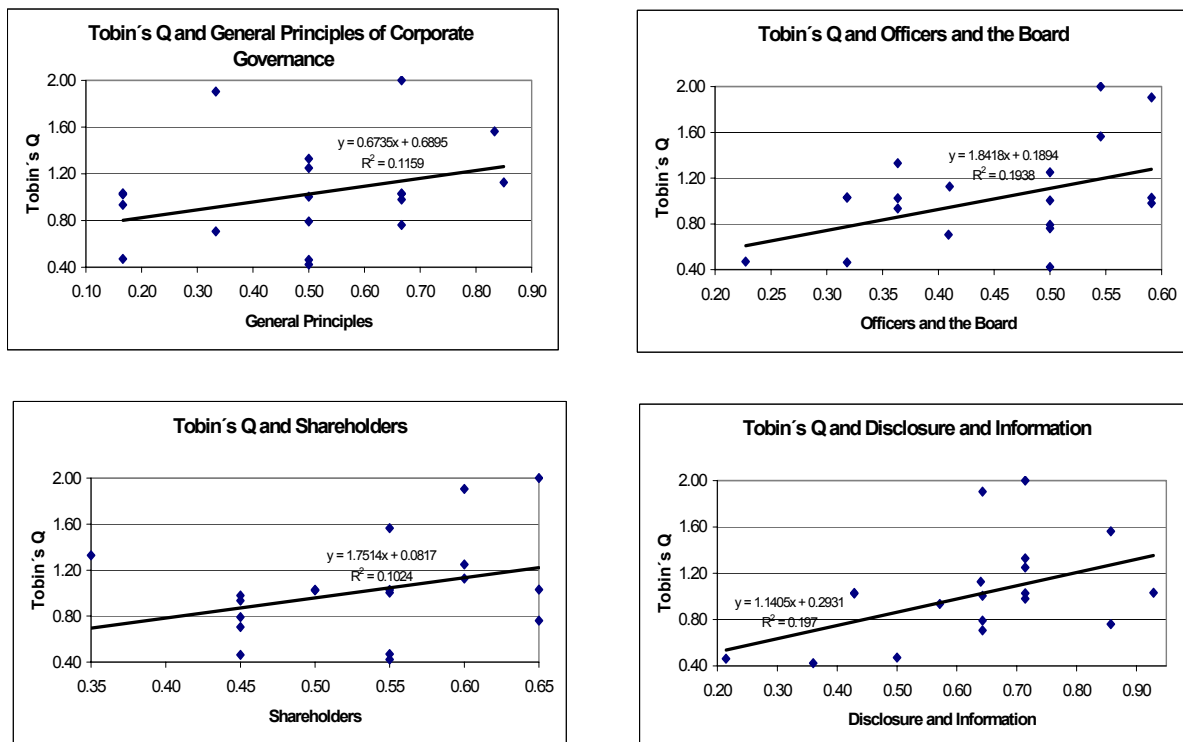


Figure A.3. Scatter Plots: Price-to-Book Ratio and Corporate Governance

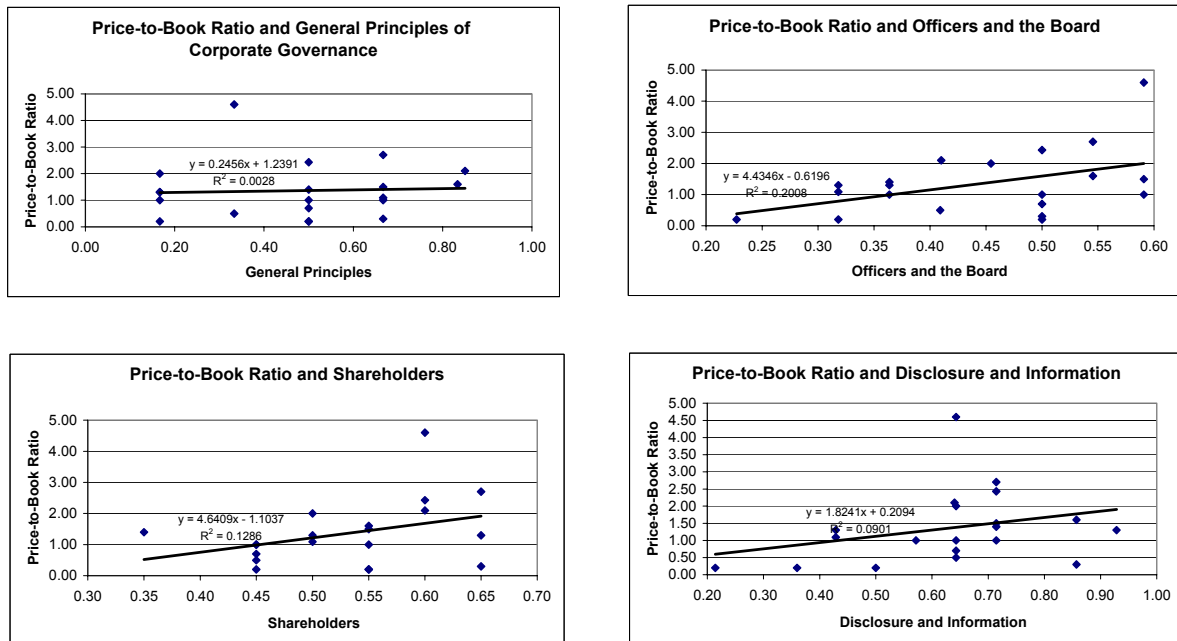
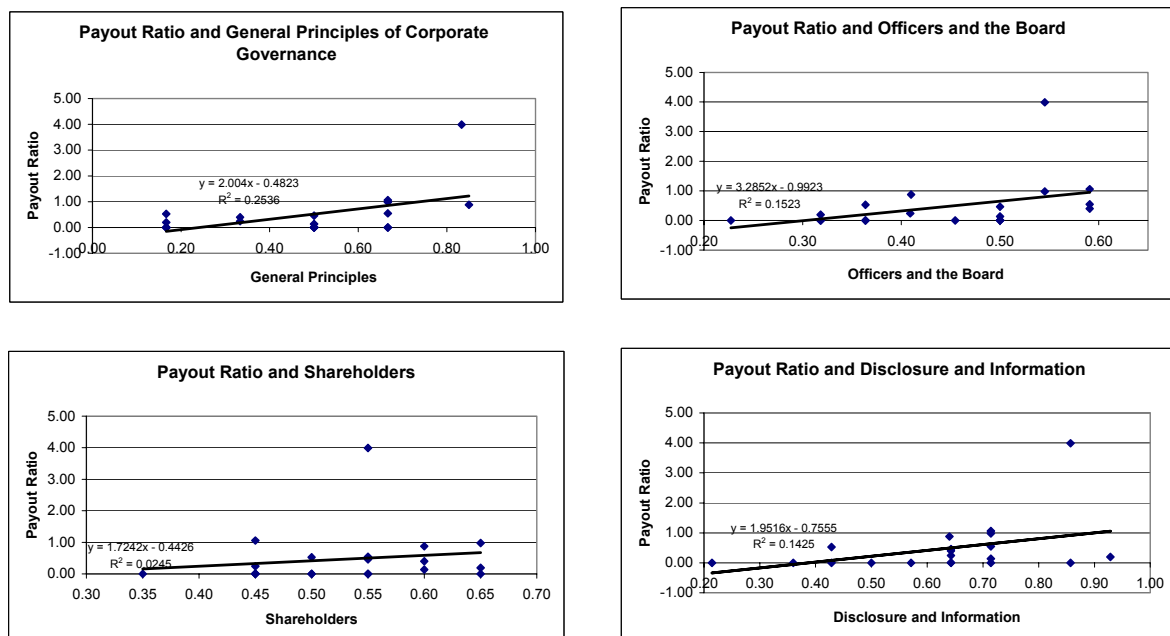


Figure A.4. Scatter Plots: Dividend-Payout Ratio and Corporate Governance



Source: See Table 3.

Table A.4. presents regression results for Tobin's q on the corporate governance index. Model 1 includes only CGI as an explanatory variable. For a one-unit increase in the CGI, Tobin's q increases by 2.24 percent. This result is both, statistically and economically significant. The other models present other specifications in which different control variables (leverage, volatility, growth, ROA2, and size) are included. Unfortunately, given the small sample size when a number of control variables are included in the same equation the degrees of freedom of the regression become too low. In general, CGI remains positive and significant in these models. The only control variable that is significant is return on assets.

Table A.5. shows regression results for the price-to-book ratio on the CGI. Model 1 presents only CGI as an explanatory variable. For a one-unit increase in the corporate governance index, price-to-book increases by 4.21 percent. This result is both, statistically and economically significant. The other models present other specifications in which different control variables (leverage, volatility, growth, ROA2, and size) are included. In general, CGI remains positive and significant in these models. Once again, the only control variable that is statistically significant is return on assets.

Table A.6. shows regression results for the dividend payout on the corporate governance index. Once again, Model 1 presents only CGI as an explanatory variable. For a one unit increase in the CGI, dividend payout increases by 4.32 percent. This result is both, statistically and economically significant. The other models present other specifications in which different combinations of control variables (leverage, volatility, growth, ROA2, and size) are included. In general, CGI remains positive and significant in these models. No control variable is significant in these regressions.

Table A.7. presents regression results of value measures (Tobin's q, price-to-book, and dividend payout) on each of the four corporate governance sub-indices. Interestingly, the only sub-index that is significant explaining each of the value measures is *officers and the board*. *General principles* and *disclosure and information* are also positive and statistically significant explaining the payout ratio.

Taking together with the non-parametric tests, these results suggest a preliminary evidence of a positive relation between market value and governance in Venezuela. Our findings are similar to those of Leal and Carvalhal da Silva (2005) in the case of Brazil, and Lefort and Walker (2005) in the case of Chile.

Table A.4.

Ordinary Least Squares Regressions of Tobin's q on Corporate Governance Measures for 2004

Definitions for each of the variables are given in Table 3. ***, **, and * represent statistically significant coefficients at the 1, 5, and 10 percent levels, respectively.

The Huber/White/Sandwich estimator of variance was used in all regressions.

Independent Variables	Dependent Variable: Tobin's Q						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Intercept	-0.3205 t=-0.71	-0.3597 t=-0.79	-0.2943 t= -0.53	-0.3385 t= -0.73	-0.2533 t= -0.55	-0.0556 t= -0.07	-0.4397 t= -0.36
CGI	2.2429*** t= 2.82	2.1370** t= 2.39	2.2297** t= 2.60	2.2549** t= 2.79	1.8651** t= 2.42	2.5010** t= 2.40	1.2637 t= 1.23
LEVERAGE		0.1837 t=0.46					0.4723 t= 0.92
VOLATILITY			-0.0012 t= -0.12				0.0027 t= 0.21
GROWTH				0.0002 t= 0.2			-0.0009 t= -0.91
ROA2					2.1336** t= 2.24		3.0586* t= 2.00
SIZE						-0.0335 t= -0.41	0.01786 t= 0.20
F-Statistic	7.94***	4.52**	4.14**	4.08**	5.39**	3.96**	1.83
Significance F	0.0100	0.0266	0.0342	0.0357	0.0491	0.0388	0.1703
Adjusted-R Squared	0.2900	0.3032	0.2906	0.2911	0.2709	0.2995	0.4461

Source: See Table 3.

Table A.5.

Ordinary Least Squares Regressions of Price-to-Book ratio on Corporate Governance Measures for 2004

Definitions for each of the variables are given in Table 3. ***, **, and * represent statistically significant coefficients at the 1, 5, and 10 percent levels, respectively.

Independent Variables	Dependent Variable: Price-to-Book						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Intercept	-1.1400 t= -1.19	-1.3943 t= -1.60	-1.0931 t= -0.97	-1.1689 t= -1.21	-1.0398 t= -1.04	1.5610 t= 1.35	1.1877 t= 0.74
CGI	4.2100** t= 2.30	3.5341** t= 2.19	4.1888** t= 2.18	4.2312** t= 2.28	3.6353* t= 1.90	6.8480*** t= 3.37	4.8099** t= 2.35
LEVERAGE		1.1794 t= 1.33					1.8585* t= 1.88
VOLATILITY			-0.0022 t= -0.10				0.0114 t= 0.37
GROWTH				0.0003 t= 0.15			-0.0041 t= -1.70
ROA2					3.2668** t= 2.25		3.6847* t= 1.86
SIZE						-0.3418*** t= -3.10	-0.3161* t= -2.13
F-Statistic	5.29**	3.91**	2.54	2.82*	5.31**	6.59***	1.78
Significance F	0.0337	0.0400	0.1087	0.0878	0.0161	0.0076	0.1798
Adjusted-R Squared	0.1838	0.2791	0.1839	0.1840	0.2224	0.3550	0.3460

Source: See Table 3.

Table A.6.

Ordinary Least Squares Regressions of dividend payout on corporate governance measures for 2004

Definitions for each of the variables are given in Table 3. ***, **, and * represent statistically significant coefficients at the 1, 5, and 10 percent levels, respectively.

The Huber/White/Sandwich estimator of variance was used in all regressions

Independent Variables	Dependent Variable: Dividend Payout						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Intercept	-2.0900 t= -1.58	-2.0314 t= -1.69	-1.8944 t= -1.16	-1.9552 t= -1.56	-2.1552 t= -1.55	-3.3833 t= 1.45	-2.6549 t= -1.12
CGI	4.3200* t= 1.74	4.4808 t= 1.52	4.2222 t= 1.57	4.2299* t= 1.73	4.6835 t= 1.67	3.0613* t= 1.93	3.7363 t= 1.22
LEVERAGE		-0.2778 t= -0.33					-0.5388 t= -0.43
VOLATILITY			-0.0088 t= -0.52				-0.0147 t= -0.74
GROWTH				-0.0015 t= -0.81			-0.0003 t= -0.13
ROA2					-2.0489 t= -0.83		-1.4342 t= -0.47
SIZE						0.1634 t= 1.11	0.1252 t= 0.88
F-Statistic	3.04*	4.15**	3.62**	1.50	1.61	1.87	1.78
Significance F	0.0981	0.0342	0.0491	0.2517	0.2294	0.1846	0.1798
Adjusted-R Squared	0.2670	0.2743	0.2709	0.2771	0.2879	0.3210	0.3460

Source: See Table 3.

Table A.7.

Ordinary Least Squares Regressions of Tobin's q, Price-to-Book, and Payout Ratio on Corporate Governance sub-indices (General Principles, Officers and the Board, Shareholders, Disclosure and Information) for 2004. Definitions for each of the variables are given in Table 3. The corporate governance index and sub-indices are presented in Section II.3. and in Table 2. ***, **, and * represent statistically significant coefficients at the 1, 5, and 10 percent levels, respectively.

Independent Variables	Dependent Variable: Tobin's Q				Dependent Variable: Price-to-Book				Dependent Variable: Payout ratio			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Intercept	0.6895** t= 2.99	0.1894 t= 0.46	0.0817 t= 0.12	0.2931 t= .83	1.2391** t= 2.15	-0.6196 t= -0.65	-1.1037 t= -0.72	0.2094 t= 0.24	-0.4823 t= -1.14	-0.9923 t= -1.19	-0.4426 t= 0.32	-0.7555 t= -1.03
GENERAL PRINCIPLES	0.6735 t= 1.54				0.2456 t=0.22				2.0040** t= 2.47			
OFFICERS AND THE BOARD		1.8418** t= 2.08				4.4346** t= 2.13				3.2851* t= 1.80		
SHAREHOLDERS			1.7514 t= 1.43				4.6409 t= 1.63				1.7242 0.67	
DISCLOSURE AND INFORMATION				1.1405 t= 2.10				1.8241 t= 1.34				1.9516* t= 1.73
F-Statistic	2.36	4.33*	2.05	4.41**	0.05	4.52**	2.66	1.78	6.12**	3.24*	0.45	2.99
Significance F	0.1419	0.0521	0.1689	0.0499	0.8260	0.0475	0.1206	0.1986	0.0236	0.0889	0.5096	0.1008
Adjusted-R Squared	0.0667	0.1490	0.0526	0.1523	-0.0526	0.1564	0.0801	0.0395	0.2121	0.1053	0.097	0.0949

Source: See Table 3.